c.a.u.t. bulletin

APRIL
1967
AVRIL

bulletin de l'a.c.p.u.

Regional Academic Planning
The Structure of Academic Salaries
C.A.U.T. Chronicle — Chronologie de l'A.C.P.U.
Thoughts on the Ingraham Report

VOLUME 15 NUMBER 4
TOME NUMÉRO

A PUBLICATION OF THE CANADIAN ASSOCIATION OF UNIVERSITY TEACHERS
PUBLIÉ PAR L'ASSOCIATION CANADIENNE DES PROFESSEURS D'UNIVERSITÉ

CANADIAN ASSOCIATION OF UNIVERSITY TEACHERS

Association	*President*	*Secretary*	*Treasurer*
1. Acadia	G. T. Rimmington	B. A. Robinson	R. J. Gerrard
2. Alta. Edmonton	W. F. Allen	E. H. Pinnington	A. S. Knowler
3. Bishop's	Dan Patridge	William Shearson	James Lowther
4. Brandon	W. L. Clark	H. Philip Constans	G. H. MacNeill (Miss)
5. U.B.C.	Robert W. Stewart	Charlotte Froese	J. M. MacIntyre
6. Brock	C. Wolff	R. Hiatt	
7. Calgary	F. Terentiuk	R. X. Ware	P. Glockner
8. Carleton	John M. Anderson	Philip Uren	Lloyd H. Strickland
9. Dalhousie	C. R. Brookbank	Mark Segal	S. Fullerton (Miss)
10. Ecole de Médecine vétérinaire		Jean Périard	
11. Guelph	J. A. McIntyre	W. J. B. Ditchfield	W. N. Stammers
12. Jean-de-Brébeuf	R. Bergeron	Gisèle Gariépy (Soeur)	
13. Lakehead	George Merrill	Albert Bruley	John Whitfield
14. Laurentian-Laurentienne	W. Y. Watson	G. Vallillee	K. L. McNamara
15. Loyola	J. T. Copp	Daniel Brown	Robert Hanrahan
16. Manitoba	I. M. Rollo	I. R. Hamilton	W. P. Beley
17. McGill	T. J. F. Pavlasek	M. P. Maxwell	A. Lloyd Thompson
18. McMaster	J. S. Kirkaldy	Lynn McDonald (Miss)	H. E. Turner
19. Memorial	J. G. Dawson	D. J. Murphy	A. T. Brace
20. Moncton	Pierre Granger	Norman J. Vautour	Léandre-J. Bourque
21. Montréal	Jacques-Yvan Morin	Gérard de Montigny	Jacques Falmagne
22. Mt. Allison	K. Durstling	D. W. Cross	
23. U. New Brunswick	George McAllister	D. F. Rowan	R. T. McKinnell
24. N.S. Tech.	G. D. MacKay	E. A. Guppy	
25. Ottawa	V. Bergeron	M.-A. Loyer (Mlle)	H. R. Morrisey
26. Queen's	C. K. Rush	Stan Beck	Dugal Campbell
27. R.M.C.	L. A. Smith	P. Perron	M. Chaudhry
28. St. Dunstan's	J. D. O'Connell	Ismat Abu-Isa	
29. St. Francis	L.-P. Chiasson	R. A. MacLean	
30. St. John's	J. C. Wenk	D. J. Lawless	T. F. Holens
31. St. Mary's	A. P. Monahan	Donald B. Warner	
32. St. Paul's	W. R. Wall	J. E. Rea	
33. Sask. Regina	Fred Anderson	M. E. P. Henderson (Miss)	
34. Sask. Saskatoon	B. L. Strayer	T. G. Smith	D. S. Spafford
35. Simon Fraser	R. J. C. Harper	C. M. MacDonald	D. Ross
36. Sherbrooke	Maurice Brisebois	J.-M. Doutreloux	Bernard Courteau
37. Sir Geo. Wms.	Roger Verschingel	G. Robert Curnew	
38. Toronto	G. F. D. Duff	K. W. MacNaught	A. J. O. Farina
39. Trent	M. J. Boote	Alan Wilson	Z. Kay
40. United	H. V. Rutherford	T. J. Kuz	R. B. Coates
41. Victoria	David J. Chabassol	Geoffrey J. Archbold	Rennie Warburton
42. Waterloo	David Kirk	G. W. Bennett	H. C. Ratz
43. Waterloo Luth.	Laurence Dawson	Arnold A. Wellwood	Janet Hay
44. Western	R. W. Packer	D. F. Jones	W. Bulani
45. Windsor	Ralph Nelson	Lois Smedick	Peter Burrell
46. York	Albert J. Robinson	Kathryn Koenig	J. David Hoffman
47. Members-at-Large			

association	*président*	*secrétaire*	*trésorier*

ASSOCIATION CANADIENNE DES PROFESSEURS D'UNIVERSITÉ

c.a.u.t.
bulletin

bulletin
de l'a.c.p.u.

A Publication of The Canadian Association of University Teachers
Publié par l'Association canadienne des professeurs d'université

April 1967 avril

Volume 15, Number 4 tome 15, numéro 4

TABLE OF CONTENTS / TABLE DES MATIÈRES

		Page
Editorial		2
Regional Academic Planning	G. Rosenbluth	3
Questions Old and New	J. P. Smith	9
Federal Payments to the Provinces for Post-Secondary Education : Fiscal Tables		15
The Structure of Academic Salaries in Canada	G. Rosenbluth	19
C.A.U.T. Chronicle — Chronologie de l'A.C.P.U.		28
Thoughts on the Ingraham Report	D. C. Baillie	35
Conseil des Arts du Canada 1964-65 et 1965-66 Canada Council, 1964-65 and 1965-66	Mireille Lapointe	49
Conseil des recherches médicales 1964-65 et 1965-66 Medical Research Council, 1964-65 and 1965-66	Mireille Lapointe	56
Appeal in Aid of the University of Florence Assistance à l'Université de Florence		61
Censured Administrations U.S. Institutions		62
Book Reviews — Notes de Lecture The Managerial Revolution in Higher Education	E. J. Monahan	63
Notice of Positions Vacant — Annonce des postes vacants		71
Notice of Persons Available for Appointment Annonce des professeurs disponibles		75

Published four times a year in October, December, February and April.
Subscription rate: $2.00 per year.
Executive Secretary: J. Percy Smith
Editor: Edward J. Monahan
C.A.U.T. National Office
77 Metcalfe St., Ottawa 4, Ont.
Advertising Office: 34 Bater Ave., Toronto, Ontario
Printed by: Le Droit
sous les presses de:
Authorized as second class mail by the Post Office Department, Ottawa, and for payment of postage in cash.

Quatre livraisons par année : octobre, décembre, février et avril.
L'abonnement est de deux dollars par année.
Secrétaire général:
Directeur:
Secrétariat de l'A.C.P.U.,
77, rue Metcalfe, Ottawa 4, Ont.
Publicité :
89
Le ministère des Postes a autorisé l'affranchissement en numéraire et l'envoi comme objet de deuxième classe de la présente publication.

EDITORIAL

This number of the BULLETIN *marks the end of the current Volume 15, the first volume to be edited from the Central Office. The year has seen some modest changes in format and some innovations, as well as an increase in the size of the* BULLETIN.

We have endeavoured to arrange for the printing and distribution of the BULLETIN *on a regular basis and, following suggestions from a number of colleagues, to increase the amount of Association news printed. It is apparent that too much of the material published in the* BULLETIN *is the product of various members of the Central Office staff. This is not an ideal state of affairs, but is one that can be remedied only by an increase in the amount of manuscript material and other copy submitted by our colleagues in the universities.*

Comments and criticisms, thoughtful suggestions for improvement, and particularly material are earnestly solicited. The pages of the BULLETIN *have always been open for the publishing of letters sent to the editor. With the beginning of Volume 16 next fall, however, a regular* LETTERS TO THE EDITOR *column will be inaugurated. Its purpose will be to provide a forum for discussion of matters of concern to the Canadian university community by those members who would like to register an opinion but who lack the time or the inclination to prepare a more formal piece.*

With so many developments taking place on the Canadian university scene, there is no shortage of topics. Indeed, there is an urgent need for informed discussion on many matters. The relative absence of commentary and criticism about the profound changes taking place in our universities today is a cause of some disquiet.

We will be pleased to hear from you.

REGIONAL ACADEMIC PLANNING

Gideon Rosenbluth

(This is a revised version of a talk delivered on February 27, 1967, at Montebello, Quebec, to the Fourth Joint Meeting on Corporate Aid to Higher Education, organized by the Association of Universities and Colleges of Canada.)

To debate whether there is need for inter-university planning is a little like debating whether there is need for the automobile, or for taxes. Planning is already with us and is not likely to go away, even if this conference should decide that there is no need for it.

There is, however, a great need for serious, open, discussion on the proper scope of inter-university planning, and the proper machinery for it. There has been very little discussion of these matters in the academic community, or in public, and what planning there is has developed in a very unplanned manner.

Given, then, that planning is here to stay, I want to touch on three questions: What are the circumstances that make planning necessary, what is the proper geographical area for planning, and who should do the planning.

The Need for Planning

I assume that by "planning" we mean what is sometimes called "academic planning", that is to say, decisions regarding the rates at which existing academic programs are to be expanded (no-one ever seems to speak of contracting any programs) and decisions regarding the establishment of new academic programs, departments, faculties, schools, or institutes. Capital planning — decisions regarding the expansion of physical facilities — is clearly a secondary operation that must be based on some program of academic planning.

The discussion of the conditions under which certain academic programs should be planned on an *inter-university* basis is closely analogous to the discussion in the world of business of the conflict between competition and efficiency where there are so-called "economies

of scale". There is a general case for "competition" between universities, in preference to planning. The search for knowledge and understanding thrives on a diversity of approaches, and on experimentation. Improvements in education require maximum scope for the innovator. The analogue with the standard case for competition in business is obvious.

If every university could carry out every academic program on an efficient scale, inter-university planning would be unnecessary. The need for planning arises because, on the one hand, a given university operation requires a minimum scale below which the return per dollar of expenditure, in terms of quality of education and both quality and quantity of research, falls sharply. The minimum scale may be determined by plant and equipment requirements (as in the case of a computing centre). It may be set by the need for a team of specialists on the faculty, or it may be determined by the "critical mass" of students required for fruitful intellectual interaction. On the other hand, government authorities are clearly not prepared to underwrite a full set of programs of the requisite scale at every single university. It used to be said that the reason for this is that there is "no demand" (in terms of students seeking education or jobs available for graduates) for more than x veterinary schools on the Prairies or more than y schools of home economics in the Maritimes. But such statements must be qualified to the extent that we are now operating as part of an international system of higher education — international with respect to the supply of students and staff and with respect to jobs for graduates. Thus, if a university in the Province of Nova Scotia wanted to establish a graduate institute of Egyptology it could do so — if it had enough money. It could get a good staff and library resources — if it paid enough, and in time it would attract good students. But such an operation would be, in essence, a form of foreign aid, and foreign aid is something that Federal and Provincial authorities can afford only to a limited extent. Indeed, Provincial authorities are reluctant to take even a national view of the benefits of education. This is what limits funds and leads to a need for planning.

While the need for planning is real in relation to certain university programs, I have the impression that the increasingly vocal demand for planning on the part of Provincial spokesmen is out of proportion to the real need and is really a demand for Provincial *control*. It is only natural that Provincial concern with the way university budgets are spent should increase more or less in proportion to the amount of Provincial money going into the universities. We may expect to hear a great deal more about the need for planning as a result of the

new Federal fiscal arrangements which will greatly increase the amounts going to universities through the Provincial treasuries.

The Geographical Area

We are asked to comment on whether planning should be "both Provincial and Canada-wide". Of course, the appropriate geographical scope for planning must vary with the project. The dominant pattern that is now developing is, however, planning on a Provincial scale in Ontario and Quebec, and on an inter-Provincial regional scale in the Maritimes and the West. At present the minimum efficient scale of certain advanced or specialized university programs seems to be too large to justify operation in every Prairie Province or every Maritime Province. On the other hand I do not believe that there is a significant range of teaching programs that requires Canada-wide planning.

It follows that planning machinery is required at the Provincial level as well as the inter-Provincial regional level. There is however no such need at the national level. This does not mean, of course, that there is no need for national organizations of the academic community, such as the A.U.C.C., which has organized these meetings, or the C.A.U.T., which I represent. It does mean that academic planning is not a proper function of these organizations.

I appreciate that these remarks appear to ignore the Federal role in research. I am sure that there is a need for Federal *financing*, particularly of basic research in the natural and social sciences and the arts. The benefits here are so unrelated to the particular Province in which the research institution is located that adequate Provincial financing cannot be expected. A limited degree of planning is no doubt necessary to ensure a reasonable distribution of effort over different research areas. Such planning differs, however, from academic planning since non-university groups are involved. Research is carried on in government institutions, in private institutes, and by unattached individuals, as well as by universities. The national groups that should be concerned are the Learned Societies in which all these groups are represented, rather than universities or their organizations.

Who Should Plan

Certain principles have long been generally accepted in the government of universities. One is the principle of university autonomy. Universities must be free from government interference or domination,

not only in their day-to-day operation, but also in their planning. Another is the principle of faculty responsibility for academic matters. Within the university it is the faculty, as distinct from the administration and the Board of Governors, who should have control over academic policy.

Certain extensions of these principles, while more controversial, have been increasingly accepted by both the university community and the public since the publication of the Duff-Berdahl Report. The distinction between academic and financial matters enshrined in the typical university constitution is seen to be unworkable. Accordingly, faculty should be represented and influential on the Board of Governors, which has primary responsibility for financial matters, and the Board should be free to make recommendations on academic policy. More work should be done by joint committees of the Senate, on which faculty dominates, and the Board, which under the Duff-Berdhal recommendations will still be dominated by lay members.

I need hardly elaborate the reasons for university autonomy and for faculty control of academic policy. There are two basic and interrelated grounds. One is expertise. The public sets the goals for education and research and leaves the experts to determine the ways and means, just as it does in the field of health, for example. The other is academic freedom. Research and teaching cannot flourish productively except in an atmosphere of freedom and self-determination, including freedom for the unorthodox, which is often the unpopular.

I have engaged in this long disgression on university government because it seems clear that the principles of university government should also apply to inter-university academic planning. This form of planning takes outside the university major academic decisions that were previously internal. The arguments for freedom from political domination and for faculty control apply with equal force.

Why do I seem to be labouring the obvious? Because the obvious in terms of what should be stands in surprising contrast to what is actually going on. The planning machinery that is developing consists, on the one hand, of provincial or inter-provincial government bodies, and on the other hand, of committees of presidents, with faculty, in most cases, left on the sidelines.

Let me give you some examples:

In December 1962 the presidents of Ontario universities formed the "Committee of Presidents of Universities of Ontario" which, in

1966, acquired a formal constitution. It has a senior paid officer, the Executive Vice-Chairman. This committee has created a body known as the Ontario Council on Graduate Studies, consisting of deans of graduate faculties. The Council, in turn, has established an Appraisals Committee, consisting of a sub-set of deans. The functions of the Committee are "to evaluate and appraise graduate programs in any discipline at the request of the university or of the Ontario University Affairs Committee or of the Ontario Council on Graduate Studies, and in every case with the consent of the university". The by-law setting up the committee states, moreover, that "it is expected that a university, acting through its graduate dean, will submit a graduate program for appraisal *before submission for approval to its own senate*" (my emphasis). The Council then grants or refuses "accreditation" of the graduate program in question. Thus faculties have been in effect deprived of control over new graduate programs. It should be understood that a university's consent for the appraisal cannot well be withheld since accreditation has financial implications.

The new Alberta Universities Act does give faculty a role in inter-university planning, since it provides for a Universities Coordinating Council which includes faculty members appointed by the General Faculty Councils of the universities, as well as administrative personnel and co-opted members. The Council's functions are, however, only advisory. Decisions, including those involved in inter-university academic planning, are made by the Universities Commission, a government body consisting of government appointees with no academic representation. The Commission recently advertised for an Academic Planning Officer whose functions were to include: "to evaluate proposals for extension and expansion of offerings . . . To study the needs of society . . . with a view to assessing the adequacy of higher education offerings . . . In consultation with the universities to project course and program development . . ."

Inter-Provincial academic planning in the Western Provinces, although still conducted on a very informal and incomplete basis, is undertaken by a committee of presidents. Academic planning in the Atlantic Region is co-ordinated by the Association of Atlantic Universities which, though having provision for faculty participation, is also essentially an organization of presidents.

These examples are typical of current trends. The suddenly emerging need for planning is being met by Provincial government

machinery and committees of administrators, while faculty members have been asleep at the switch. Unless these trends are reversed, the quality of university programs will suffer, and a vast amount of time will be wasted and tempers frayed, as the battles that have been fought, and are still being fought, over university government will be repeated in the area of inter-university planning.

Gideon Rosenbluth,
University of British Columbia.

AFFAIRE WILLIAMSON-MURRAY
tome 15, n° 3, février 1967

Nous désirons porter à votre attention un contresens fâcheux de traduction : **(page 37, dernière ligne)**

« Le différend, assez mal exposé, est le suivant : »

Veuillez y substituer :

« En bref, le différend est le suivant : »

M. L.

QUESTIONS OLD AND NEW

J. P. Smith

> . . . all the organization of professional training and the colleges, universities, academies and so forth, which had served the old order, were . . . tossed about, dwarfed and pressed upon by the huge dumb necessities of a world metamorphosis . . . . But a partial and reluctant disposition to adaptation became more and more operative . . . and produced . . . a great multiplication of technical and secondary schools, a growth in the numbers upon existing university rolls and the foundation of a great number of new universities. This adaptation was more quantitative. The need for more and more widely extended education was realized long before the need for a new sort of education . . .

And so on. The words are those of H. G. Wells, who wrote them in 1934. The period to which he referred was the 1880's. The chapter containing the passage might profitably be read by everyone — student, faculty member, or administrator — who thinks that university teaching is bad, that the examination system is a cheating joke, that it is time universities adjusted their curricula to the needs of society, that instead of enlightening students, universities merely process them. It is not at all clear that Paul Goodman did not get his more advanced ideas from Wells.

At the present moment, however, the old insistent questions are worrying Canadian university people less than some immediately pressing ones. These have less to do with the quality of higher education than with the conditions of its continued existence. For the effect of the newly-enacted legislation dealing with federal-provincial agreements about finance is unmistakably to make the universities more completely dependent on the good will, good sense, and imagination of provincial politicians than they have ever been. It would be idiotic to suggest that provincial politicians are necessarily short of these qualities. It would be equally idiotic not to recognize that the pressures of their responsibilities both to their constituents and to the duties of their offices will tend to narrow their efforts into channels of expediency and practicality which inevitably tend in turn to deny the spirit of enquiry and idealism without which a university is never more than half alive. One can speak only of tendencies, because the effect is not inevitable; readers of Richard Hof-

stadter's *Anti-Intellectualism in American Life* shoud be forgiven, however, if they feel a certain uneasiness about the future.

It is clear that one of the crucial determinants of that future will be the machinery by which the new ways of financing the universities are effected. Professor Rosenbluth has commented on this subject elsewhere in the *Bulletin*, and it is needless to elaborate further. Recent statements by politicians both in and out of office — Premier Stanfield and M. Gérin-Lajoie, for example — do nothing to allay the misgivings that he expresses.

If we ask — as surely we must — what role the C.A.U.T. and its affiliated faculty associations can now best play, the answer is a simple and indeed professional one : educate. President Samuel B. Gould, concerned about the erosive effects of state government on the State University of New York, commented recently that

> the most difficult problem some of us may have is that of persuading state officials and the citizenry in general that it is absolutely essential that a university, if it is to be worthy of the name, is not at all the same as a government agency. And if it is forced to operate inflexibly under the rules of a government agency, it is doomed to mediocrity or worse.
>
> This is not to urge for university authority and independence without responsibility. It is rather to recognize the differences between a university and state departmental agencies because of their differences in purpose and mission. It is to recognize the necessity for freeing the university from as many bureaucratic strictures as are feasible in order that it may take the appropriate initiative in developing and transforming itself to meet the needs of the times and the society it serves.

In short, the need is to educate the members and officials of governments in the nature of universities and the qualities that make them different from all other institutions whatsoever. It is not to be expected that university presidents alone should undertake the job; in a time when as faculty members we are pressing our claim to participate in the larger decisions of university policy, it is right that we also undertake responsibilities that have to do with the university in its widest relationships.

The process of educating "officials and the citizenry" in these matters is partly a process of self-education. For it is urgently necessary that faculty members themselves study the effects and implications of the new arrangements, and generate the widest possible discussion of them. It is not merely the institutions called universities that are at the centre

of the problem; higher education is intimately bound up with the whole problem of the quality of our national life. One can hardly contemplate the new legislation without asking, for example, whether one long-run effect may not be to perpetuate the inequities that exist between the provinces at the same time that, paradoxically, it leads to a distressing conformity among universities. One must ask what is likely to be the effect on tuition fees and admissions standards, since it is clear that an astute minister who was not above putting pressure on universities to raise the former or (in some circumstances) lower the latter could readily turn the effects of the legislation to his immediate political advantage; and what may be the effects on accessibility to higher learning from province to province, and on the mobility of both faculty and students?

The answers are not clear, but the questions have been clearly posed as a result of the decision that has been taken — or compromise that has been reached — on the meaning of the term "education" as it appears in the B.N.A. Act. I am neither a political scientist nor a constitutional lawyer, and I have listened with respect to arguments on both sides of the question about jurisdiction over higher education. I have my own opinion about it. But what strikes me with bewildering force is that while the argument goes on (or is it simply political cockfighting ?) a generation of young Canadians is being to a shocking extent overlooked and the future of later generations but little considered. A well-known professor is said to have commented that governmental generosity is not unconstitutional. Unfortunately, it is also not reliable — as ten thousand non-holders of promised thousand-dollar scholarships know.

As we contemplate the implications of the new arrangements for academic programmes, one of the areas most obviously endangered is that of international studies, in which Canada has been a late and slow starter, and in which promising beginnings have been made only very recently at a few courageous institutions. It is hardly questionable that the ability of Canada to play an effective role in the world, a role such as we should want her to have, is going to depend on her developing a richer understanding of the cultures and the problems of other nations, as well as on training considerable numbers of young people in the special knowledge and skills on which such a role depends. It is of course clear that some provinces are, at the moment, internationally-minded enough; it is equally clear that they may not remain so, and that others are not so. One is bound to wonder how the new arrangements are likely to affect further developments in this area of learning. It is worth pointing out that the International Education Act of the United States

provides for over $130 millions to be spent in 1967-69 in helping the universities of that country to develop their programmes of international studies. Behind that Act lay an enormous amount of study and discussion, extending over the period since the post-war years when, as Kenneth W. Mildenberger states it, "the government had established that it looked upon the higher education enterprise as a national adjunct for non-Western knowledge and training". Some notion of the range of the discussion may be obtained from the volume of selected readings prepared for the House Committee on Education and Labour which handled the new Act. Canada, by contrast, at times cannot even speak significantly with a clear voice in such an organization as UNESCO, when education is the subject.

A second area about which we may well be gravely concerned is that of research. It is, of course, clear enough that not all research, even in the universities, can accurately be described as "education". It is equally clear that a very great deal of research has immediate and profound effects on the programmes of university departments, and that to attempt to distinguish it from education is the merest sophistry. One wonders, therefore, on what basis in logic the agreement was reached that the new arrangements should leave the federal government free to contribute to research — when by its doing so millions upon millions of dollars are poured into the universities. How long is it likely to be before the demand arises for an end to this interference? Perhaps it never will; but the case for federal support of the academic programmes of universities also seemed a strong one until a few months ago.

We need to be deeply concerned, then, about ensuring the continuing support of research programmes, especially in the "pure" research which is most clearly a part of the essential function of universities. Applied research, important as it may be to industry, is frequently out of place in a university. (The Associate Commissioner of Research in the U.S. Office of Education recently commented on applied research in education, "I'm beginning to think it's almost a waste of money.") Contract research is similarly suspect. But for the research that has as its object the extension of knowledge, from which applied research springs, we must be constantly solicitous. It is precisely this research that is most vulnerable to the effects of the forces of expediency and shortsighted practicality.

The C.A.U.T. Council decided at its meeting in December to attempt to initiate, on behalf of the whole university community, a

thorough study of the relations between universities and governments. It hoped to enlist the support of the A.U.C.C., the student organizations, and the provincial and federal governments, for the subject of the study could hardly be more important. The plans for it are now taking shape. It seems to me crucially important, however, that we should not expect a commission, expert and perceptive as we hope it may be, to solve our problems. These depend much more for their solution on the willingness of faculty members to participate in active, concerned, and at times undeniably tedious public — as well as private — discussion of the issues.

It is possible that the most important effect of the existence of a strong commission to make such a study will be the effective development of such discussion. The debate is long overdue, and an examination of the Hansards reporting the passage of the new legislation through Parliament makes painfully clear the reluctance of our political leaders to participate in it. Despite comments from all quarters of the house on the complexity of the legislation, the importance of its implications and the necessity of full and carefull consideration, the Bill, having been introduced on March 2 and 3, was given its third and final reading on March 10, after a *total* of seven hours of deliberation. Set this record alongside that of the flag debate or the endless bickering over unification of the armed forces — and it is difficult not to agree with E. M. Forster that democracy may deserve two cheers, but certainly not three.

One step that faculty associations might well take would be to bring about meetings between groups of professors and members of governments along the lines of the Cambridge Discussion of July 1965. On that occasion ten faculty members of British universities met informally for a week-end with six members of Parliament and a research director from industry, to discuss, from various angles, the relations between universities and government. A series of such meetings, involving members of provincial legislatures and university faculty members in frank informal discussions of higher education, might go a long way towards achieving a healthier understanding of a set of problems in which both groups are profoundly involved.

Certainly, however we tackle it, the job could hardly be more serious; but it need not divert us entirely from those questions with which I began this article, or destroy the perspective that they provide. Looking back over half a century, Wells could see the comic as well as the portentous in what he described :

> Waste and absurdity stalk mankind relentlessly, and it is impossible to ignore the triumphs of waste and absurdity occur-

ring in that early struggle to produce an entirely educated community. It was the most natural thing for the human mind to transfer importance from the actual learning of things, a deep, dark, intricate process, to the passing of examinations, and to believe that a man who had a certificate in his hand had a subject in his head . . . .

J. P. Smith

FEDERAL INCOME TAX NOTES : *A FURTHER NOTE* ON VISITING PROFESSORS

Professor Byrd has asked that the following paragraphs be added to his Federal Income Tax Notes *as printed in the February issue of the* Bulletin *(Volume 15, Number 3), pp. 53-64. They cover details of two articles in the new Canada - United Kingdom Tax Agreement of December, 1966.*

Article 18. A Canadian Professor visiting the United Kingdom for a period not exceeding 2 years, for the purpose of teaching at a university, college, school or other educational institution, in the United Kingdom, shall be exempt from tax in the United Kingdom on any remuneration received for such teaching, provided he is, or was immediately before the visit, a resident of Canada.

Article 19 provides that an individual who is a resident of Canada, or who was so resident immediately before visiting the United Kingdom, shall not be taxed in the United Kingdom on any grant, allowance or award from a governmental, religious, charitable, scientific, literary or educational organization established in Canada, if made primarily for research to be carried out in a period not exceeding 2 years.

Kenneth F. Byrd,
McGill University.

PROVISION FOR FEDERAL PAYMENTS TO THE PROVINCES FOR POST-SECONDARY EDUCATION

The information reprinted here was tabled in the House of Commons of Canada during the presentation by the government of a bill to provide additional payments to the provinces for provincial revenue equalization payments and post-secondary education adjustments payments.

When this bill becomes law, its terms are to provide the basis for the transfer from the federal government to the provinces of certain tax revenues intended to be used by the provinces for the financing of operating and capital costs of institutions of post-secondary education, including colleges and universities.

The bill received third and final reading on Friday March 10th, and was passed.

Tables I, II and III are reprinted from Hansard for Friday, March 3, pp. 13718-9; Tables IV and V from Hansard for Thursday, March 9, p. 13789.

ILLUSTRATIVE COMPARISON OF FISCAL ALLOCATIONS UNDER PRESENT AND PROPOSED NEW ARRANGEMENTS FOR FISCAL TRANSFER IN RESPECT OF POST SECONDARY EDUCATION COSTS

Table I
Present Arrangements 1966-67 (Estimated)
(millions)

Provinces	Population June 1, 1966	University grants [1] $5.00 per capita (Interim arrangements)	TVT [2] operating and capital	Total allocations
		$	$	$
Newfoundland	0.5	2.2	1.1	3.3
Prince Edward Island	0.1	0.6	0.2	0.8
Nova Scotia	0.8	5.1	4.1	9.2
New Brunswick	0.6	4.0	3.4	7.4
Quebec	5.7	28.9	68.3	97.2
Ontario	6.9	33.4	63.7	97.1
Manitoba	0.9	5.1	4.8	9.9
Saskatchewan	0.9	4.5	4.5	9.0
Alberta	1.5	7.0	7.3	14.3
British Columbia	1.9	8.9	12.9	21.8
Total	19.8	99.7	170.3	270.0

Table II
New Arrangements 1967-68 (Estimated)
(millions)

Provinces	Fiscal transfer [3] re post secondary education operating expenditures	TVT capital "Phase Out"	Total
	$	$	$
Newfoundland	7.7	0.8	8.5
Prince Edward Island	1.7	0.8	2.5
Nova Scotia	13.7	6.0	19.7
New Brunswick	9.5	2.0	11.5
Quebec	106.0	45.0	151.0
Ontario	112.7	40.0	152.7
Manitoba	17.8	5.0	22.8
Saskatchewan	15.6	7.0	22.6
Alberta	30.3	7.0	37.3
British Columbia	30.6	8.0	38.6
Total	345.6	121.6	467.2

1. Per capita grants in 1966-67 involve use of out of province student factor in calculating provincial allocations. The province of Quebec, under the interim arrangements, receives a tax abatement together with an adjustment grant, the total value of which is equivalent to $5 per capita.
2. Does not include adult operating or capital expenditures under TVT programs.
3. The value of the fiscal transfer in respect of post secondary education operating costs was calculated according to which was of greater value to a province: $15 per capita or 50 per cent of operating costs of post secondary educations as illustrated in the attached table. (III)

TABLE III

Basis of Calculation of Proposed 1967-68 Federal Fiscal Transfers to Provinces in Respect of Post-Secondary Education Costs

($,000's)

Provinces	Estimated population 1	Estimated operating costs of universities 2	Other post-secondary estimated operating costs 3	Total 4	50 per cent of estimated operating costs 5	Value of $15 per capita 6	Amount of proposed fiscal transfer 7	Addition of technical and vocational training capital "Phase-Out" 8	Grand total 9
Newfoundland	515	4,935	1,807	6,742	3,371	7,700	7,700	800	8,500
Prince Edward Island	111	1,489	630	2,119	1,059	1,700	1,700	800	2,500
Nova Scotia	768	22,360	4,976	27,336	13,668	11,500	13,668	6,000	19,688
New Brunswick	634	13,295	2,939	16,234	8,117	9,500	9,500	2,000	11,500
Quebec	5,861	151,615	60,454	213,069	106,034	87,900	106,034	45,000	151,034
Ontario	7,045	179,586	45,909	225,495	112,747	105,700	112,747	40,000	152,747
Manitoba	971	29,035	6,631	35,666	17,833	14,600	17,833	5,000	22,833
Saskatchewan	965	23,471	7,766	31,237	15,618	14,500	15,618	7,000	22,618
Alberta	1,497	43,289	17,397	60,686	30,343	22,400	30,343	7,000	37,323
British Columbia	1,906	53,125	8,126	61,251	30,626	28,600	30,626	8,000	38,626
Total	20,273	522,200	156,635	678,835	339,417	304,100	345,769	121,600	467,389

Notes :

[1] Includes costs of post-secondary courses of study in technical institutes, teachers' colleges etc. and of "senior matriculation" courses.

[2] The arrangement is that provinces will receive the greater of columns 5 or 6.

[3] Column 7 indicates the amounts to be transferred to the provinces on the basis of estimated total operating expenditures. When actual expenditures are subsequently known, a final settlement will be made with those provinces to which the per cent formula applies.

Comparison of Estimated Fiscal Transfers to the Provinces Under the Present Fiscal Arrangements in 1966-67 and Under the Proposed Fiscal Arrangements for 1967-68

($ Millions)

Table IV

Provinces	Present Arrangements — 1966-67 (Estimates)				
	Equalization Payments including Atlantic Provinces Adjust. Grant	University Grants at $5 Per Capita Adjusted	Technical and Vocational Operating and Capital	TOTAL	TOTAL Per Capita (Dollars)
	(I)	(II)	(III) [1]	(IV=(I+II+III)	
Newfoundland	37.7	2.2	1.1	41.0	81.2
Prince Edward Island	10.6	0.6	0.2	11.4	104.6
Nova Scotia	50.2	5.1	4.1	59.4	78.1
New Brunswick	44.7	4.0	3.4	52.1	83.1
Quebec	150.4	28.9	68.3	247.6	43.1
Ontario	—	33.4	63.7	97.1	14.1
Manitoba	27.7	5.1	4.8	37.6	39.2
Saskatchewan	33.0	4.5	4.5	42.0	44.0
Alberta	—	7.0	7.3	14.3	9.8
British Columbia	—	8.9	12.9	21.8	11.7
Total	354.3	99.7	170.3	624.3	31.4

Table V

Provinces	Proposed Arrangements — 1967-68 (Estimates)				
	Equalization Payments	Fiscal Transfer in respect of Post-Sec. Education	Extension of Capital Assist. for Tech. and Vocational Training	TOTAL	TOTAL Per Capita (Dollars)
	(I)	(II)	(III)	(IV=(I+II+III)	
Newfoundland	66.9	7.7	0.8	75.4	146.4
Prince Edward Island	14.1	1.7	0.8	16.6	149.5
Nova Scotia	73.4	13.7	6.0	93.1	121.2
New Brunswick	64.8	9.5	2.0	76.3	120.3
Quebec	260.2	106.0	45.0	411.2	70.1
Ontario	—	112.7	40.0	152.7	21.7
Manitoba	29.5	17.8	5.0	52.3	53.9
Saskatchewan	26.4	15.6	7.0	49.0	50.8
Alberta	—	30.3	7.0	37.3	24.9
British Columbia	—	30.6	8.0	38.6	20.3
Total	535.3	345.6	121.6	1,002.5	49.5

[1] Does not include adult operating or capital expenditures under Technical and Vocational Training Agreements.

THE STRUCTURE OF ACADEMIC SALARIES IN CANADA

It is well known, or rather generally believed, that academic salaries vary according to certain characteristics of the university concerned — whether it is in the Atlantic Region or in Ontario; is large or small; is provincial or private, etc. They also vary according to certain characteristics of the faculty member — experience, rank, field of specialization, etc.

One can — and does — think of these characteristics as factors influencing an individual's salary. It is not a simple matter, however, to measure the influence of each factor on salary, because in any simple comparison different factors are combined. If one wishes to determine the salary differential between Ontario and the Atlantic Region, for example, a comparison of average faculty salaries in the two regions will not be enough, since these averages may reflect differences in the proportion of females, in the proportion of full professors, in the proportion of faculty in medical schools, etc. Nor can the problem be resolved by simply refining the classification and confining the comparison between Ontario and the Atlantic Region to standardized groups such as "male full professors with Ph.D's and 20 years' experience in departments of sociology in large Provincial universities" because then the number of individuals available for comparison in such a standardized group is so small that the result is likely to be dominated by chance factors. More sophisticated statistical techniques are however available.

This article is a preliminary report on an investigation of the influence of various factors on academic salaries using the technique of multiple regression analysis. The study uses data for virtually all academic personnel, for the years 1962/63 and 1965/66, kindly made available by the Dominion Bureau of Statistics. It was directed by Dr. R. A. Holmes of Simon Fraser University and myself. We were assisted by Mr. T. Ohki, who programmed the computations for the computer. Computations were performed on the IBM 7040 computer at UBC.

The Data

Our estimates are based on statistical reports giving basic annual salary for all faculty members for the academic years 1962/63 and

1965/66. The information is reported by bursars to the Dominion Bureau of Statistics, and we obtained the data on punch cards from the Dominion Bureau of Statistics, but with safeguards and omissions that assured that individual names and individual universities cannot be identified. In addition to salary the following information is reported for each individual:

Region (4 classes), size of university in terms of enrolment (5 classes), control of the university (provincial, church, other) sex, rank, field, highest degree earned, year of birth, year of first degree, year of highest degree.

Experiments with the data indicated that the last three variables performed about equally well as measures of "experience" and that there is no significant gain in information in using more than one of them. "Age" was therefore chosen as the measure of "experience" in our analysis, since it was available for more cases than the other two variables. The 67 fields reported to DBS were grouped by us into the 18 classes shown in the tables.

The analysis is based on about 10,000 records for males and about 1,400 records for females for 1965/66 and a total of about 7,400 records for 1962/63.

Processing

The influence of various factors is estimated by means of a model in which it is assumed that each individual's salary is the sum of a number of components. Thus

$$S = a + b + c + d + e + f + g + h + u$$

Here S is the individual's salary.

a is an average component depending only on whether the individual is male or female.

b, c, d, e, f, g, h, also depend on sex but in addition

b depends on whether the university is located in the Atlantic Region, Quebec, Ontario, or the West

c depends on the size of the university, in terms of student enrolment, five size classes being employed

d depends on whether the university is provincial, church-affiliated, or private

e depends on the individual's field, 18 classes being employed in the analysis

f depends on the individual's rank

g depends on his age

h depends on his highest degree

u represents the effect of other factors and "chance" on the individual's salary.

The four alternative values of b, for males, for example sum to zero, and the same is true of the values for females. Similarly, the alternative values of each of c, d, e, f, and h, sum to zero for both males and females. g is assumed to be a second order polynomial function of age.

The values of a, b, c, d, e, f, g, h, are estimated simultaneously by the method of least squares, so that the value of u for each individual is calculated as a residual.

Results

The present report will deal with only some aspects of the results for 1965/66.

Table 1 shows the values of a, b, c, d, e, f, g, h, for males and females in 1965/66. The table can be read and used as shown by the following examples:

(1) The typical salary of a male in the Atlantic region, *after correcting for other factors* was $11,173 ($12,169 - $996). If we specify moreover that he is an associate professor, his average salary is $9,905 (subtract $1,268). If we specify further that his field is economics, his average salary is $9,919 (add $14). If he has a Ph.D. his average salary is $9,989 (add $70) and if he is at Dalhousie (which has some 3,500 students) his average salary is $10,101 (add $112).

(2) When we standardize for other factors, the typical differential between Quebec and Western salaries is $410 ($503 — $93) for males and $17 ($323 - $306) for females, Quebec having the higher salaries. Again, after other factors are allowed for, faculty in schools of commerce typically earned $584 more ($155 + $429) than faculty in the humanities.

(3) Standardizing for other factors, females earned $1,199 less than males ($12,196 - $10,970). In the Atlantic region the differential is however only $1,033 (add (- $996) - (- $830). For full professors other than heads the differential is only $457 (add $1,439 - $2,181 to $1,199).

Table 2 presents figures corresponding to those of Table 1, but with "Rank" omitted from the list of salary-determining factors. The underlying model for this table is based on the view that high or low rank should be regarded as a symptom of high or low salary rather than as a "cause". Which is the more useful model depends to some extent on whether one believes that promotion policies are reasonably uniform across the country. If, for a given experience level, a given rank represents roughly the same degree of "merit" at all universities, Table I can be useful, with rank interpreted as an index of merit. If, on the other hand, promotion policies are used by universities to iron out discrepancies between their scales on the one hand and the relation between salary and experience that the market demands on the other, Table 2 would seem to be the more useful.

The reliability of the estimates, as measured by statistical tests, will be discussed in a later paper. It should be mentioned here that the "fit" of the models is very good, as cross-section studies go. As measured by the squared correlation coefficient, Table 1 explains 84 percent of the variation in individual salaries and Table 2 (with "rank" omitted) 62 percent. These values, together with the fact that the number of observations is very high, suggest that our results are very reliable. The main factors omitted from the analysis are, presumably, variation in individual "merit" or "marketability", on which no data are available, and variation in policy between individual universities, which could not be analyzed because of the D.B.S. rules against disclosure.

By adding components from the different sections of a table, as illustrated by the examples above, the reader can construct his own comparisons. Here we shall briefly discuss some of the more important findings.

Both tables show that salary differentials between the Atlantic and other regions are far greater than those among the other three. The male differential between the Atlantic region and Ontario is about $1,400 and that for females is somewhat smaller.

Large universities tend to have higher salaries than do the small. The differential between the largest and smallest size group is about $900 for males when rank is excluded from the analysis but only about $600 when rank is included. The difference must reflect the higher proportion of low-ranking staff in the smaller institutions.

Rank differentials follow the obvious pattern. Holding other factors constant, the typical male assistant professor's salary was about $9,100

and the typical salary for a professor (not a department head) was about $13,600, giving a differential of $4,500. Of course, if age is not held constant and we wish to compare a thirty-year old assistant professor with a fifty-year old professor, we must add about $1,200 ($381+$830) to the differential.

Among the more interesting results are the "pure" differentials among fields which the study yields. Other things equal, a teacher in law earns about $800 more than one in the humanities, and a male teacher in dentistry and medicine earns $1,000 more than one in law. The first of these differentials is greatly increased (to $2,000) when "rank" is omitted from the analysis and the second is reduced (to $500). This suggests that the high salaries in law are due largely to more rapid promotion than is customary in the humanities or medicine.

The pure effect of increasing experience on salary looks very large when rank is omitted from the analysis and much smaller when rank is included. In the former case, the effect of rank differences is of course largely absorbed by the age variable. Secondly, it should be noted that the rate at which salary rises with age declines sharply with advancing age. Finally, it is of interest that female age differentials are much lower than those for males. These points are illustrated by the following summary based on Tables 1 and 2.

SALARY DIFFERENTIALS FOR 10 YR. AGE INTERVALS

Age Interval	($000) Rank Excluded		Rank Included	
	M	F	M	F
30 — 40	2.3	1.0	0.8	0.3
40 — 50	1.6	1.0	0.3	0.2
50 — 60	0.9	1.1	0.1	0

When all other factors except rank are standardized the average female earned $2,100 less than the average male. For corresponding ranks, the female differential was on the average $1,200. Thus rank differentials for the same age, field, etc. are an important factor in the lower earnings of women. A detailed analysis of the male-female differential will be included in another report.

Gideon Rosenbluth,
University of British Columbia.

TABLE 1

ACADEMIC SALARY COMPONENTS 1965/66 (RANK INCLUDED)

Variable or Attribute	Component		
	Male	Female	M — F
	$	$	$
Region			
Atlantic	-996	-830	-166
Quebec	503	323	179
Ontario	389	201	197
Western	93	306	-213
Enrolment			
5000 & over	373	234	139
2000 — 4999	112	280	-168
1000 — 1999	-134	-33	-101
500 — 999	-96	158	-254
Under 500	-256	-639	383
Control			
State	401	239	162
Church	-89	10	-99
Other	-312	-249	-63
Rank			
Dean	4402	2811	1591
Chairman	2598	2363	235
Other Professor	1439	2181	-742
Associate Professor	-1268	-502	-766
Assistant Professor	-3068	-2648	-420
Other	-4103	-4205	102

TABLE 1 *(continued)*

ACADEMIC SALARY COMPONENTS 1965/66
(RANK INCLUDED)

Variable or Attribute	Component		
	Male	Female	M — F
	$	$	$
Field			
Administration	319	-365	684
Humanities	-429	-308	-121
Econ., Ec. & Pol. Sc.	14	102	-88
Pol. Science	-235	-160	-75
History	-333	73	-406
Other Pure Soc. Sciences	-140	-134	-6
Commerce	155	188	-33
Education	130	138	-8
Law	389	496	-107
Home Economics	-1252	67	-1319
Other Appli. Social Sciences	-292	39	-331
Pure Biological Sciences	124	-309	433
Agr., Forestry, etc.	-128	-456	328
Dent. & Med.	1367	814	553
Hygiene & Nursing	777	-144	921
Optom. & Pharm.	-552	96	-648
Pure Phys. Sciences		-188	203
Appl. Phys. Sciences	71	-47	24
Highest Degree			
Ph.D.	70	106	-36
M.A.	-157	3	-160
1st Prof. Degree	354	213	141
B.A. & No Degree	-267	-322	55
Age			
30	-830	-338	-492
40	-67	2	-69
50	381	171	210
60	516	165	351
Common Term	12169	10970	1199
R^2		0.8368	

TABLE 2

ACADEMIC SALARY COMPONENTS 1965/66
(RANK EXCLUDED)

Variable or Attribute	Component		
	Male	Female	M — F
	$	$	$
Region			
Atlantic	-844	-930	86
Quebec	390	389	1
Ontario	541	262	279
Western	-87	279	-366
Enrolment			
5000 & over	459	182	277
2000 — 4999	72	343	-271
1000 — 1999	117	-45	162
500 — 999	-168	101	-269
Under 500	-480	-581	101
Control			
State	469	373	96
Church	-166	-62	-104
Other	-303	-311	8

TABLE 2 *(continued)*

ACADEMIC SALARY COMPONENTS 1965/66
(RANK EXCLUDED)

Variable or Attribute	Component		
	Male	Female	M — F
	$	$	$
Field			
Administration	4123	2089	2034
Humanities	-938	-896	-42
Econ., Ec. & Pol. Sc.	30	68	-38
Politics	-372	-505	133
History	-795	-315	-480
Other Pure Soc. Sciences	471	-317	-154
Commerce	88	2189	-2101
Education	-424	9	-433
Law	1101	239	862
Home Economics	-1980	76	-2056
Other Appli. Social Sciences	-1360	-108	-1252
Pure Biological Sciences	-92	-779	687
Agr. & Forestry	-182	-88	-94
Dent. & Medicine	1568	292	1276
Hygiene & Nursing	622	-415	1037
Optom. & Pharm.	-769	-467	-302
Pure Phys. Sciences	-185	-562	377
Appl. Phys. Sciences	36	-510	546
Highest Degree			
Ph.D.	791	1162	-371
M.A.	-305	-213	-92
1st Prof. Degree	279	138	141
B.A. & No Degree	-765	-1087	322
Age			
30	-2796	-1552	-1244
40	-466	-539	73
50	1165	506	659
60	2097	1585	512
Common Term	11109	9019	2090
R^2		0.6235	

C.A.U.T. CHRONICLE

The dramatic expansion of universities in Canada would be impossible without the rapid increase in the number of faculty members that is taking place. It is natural that many of the new faculty members, either because they come to Canada from other countries or because they are just beginning their professional university careers, have little k n o w l e d g e of the work of the C.A.U.T. It is in order to provide such information for them — and to refresh the memories of the rest of us — that the following pages have been prepared. We hope that they will provide some insight into the nature of C.A.U.T. activities and objectives — and costs — and encourage interest, participation, and criticism.

CHRONOLOGIE DE L'A.C.P.U.

Le développement subit et rapide des universités au Canada ne pourrait se réaliser sans une augmentation parallèle du nombre de professeurs. Plusieurs nouveaux professeurs connaissent peu les travaux de l'A.C.P.U. : ils viennent de l'étranger; ils débutent dans la carrière de professeur d'université. Nous avons préparé à leur intention une chronologie de l'Association. Pour nous tous, elle remettra en mémoire des dates importantes. Nous osons croire que ces quelques pages donneront un aperçu du rôle de l'A.C.P.U., de la nature de ses travaux, de ses coûts de fonctionnement. Puissent-elles éveiller votre intérêt, motiver votre collaboration, susciter vos commentaires.

Organization Meeting		Réunion de fondation
First C.A.U.T. collection and distribution of salary information, the beginning of the annual salary reports	1951	L'A.C.P.U. recueille et diffuse les renseignements sur les traitements; cette année marque le début des rapports annuels sur les traitements.
First edition of **Income Tax Guide for Canadian University Teachers**	1953	Première édition: **Income Tax Guide for Canadian University Teachers.**
First issue of **Bulletin**		Première livraison du **Bulletin**
Participation in D.B.S. Conference on Statistics of Higher Education	1955	Délégués de l'A.C.P.U. à la conférence sur les statistiques de l'enseignement supérieur, organisée par le Bureau fédéral de la statistique

Submission to the Gordon Commission (on Canada's Economic Prospects) : **The University Teacher and the Crisis of Higher Education in Canada**	1956	Mémoire présenté à la Commission royale d'enquête sur les perspectives économiques du Canada (Gordon) : **The University Teacher and the Crisis of Higher Education in Canada.**
Submission to the Fowler Commission (on Broadcasting and Television)		Mémoire présenté à la Commission Fowler (radiodiffusion et télévision)
Participation in N.C.C.U. conference on Canada's Crisis in Higher Education		Délégués de l'A.C.P.U. à la conférence de la C.N.U.C. sous le thème : **Canada's Crisis in Higher Education.**
Adoption of Policy Statement on Pensions	1957	Adoption d'une déclaration de principes sur les régimes de caisses de retraite
Decision to proceed towards the establishment of a Head Office		Mesures en vue d'établir un secrétariat permanent.
Investigation of the Dismissal of Professor H. S. Crowe	1958	Enquête sur le congédiement du professeur H. S. Crowe
Appointment of Stewart Reid as Executive Secretary	1959	Nomination de Stewart Reid au poste de secrétaire général
Establishment of Head Office		Établissement du secrétariat permanent
First report on fringe benefits		Premier relevé des avantages sociaux
Establishment of standing Committee on Academic Freedom and Tenure		Nomination du comité permanent de la liberté universitaire et de la permanence de l'emploi
Report of Committee on University Government	1960	Rapport du comité d'étude sur les structures administratives des universités
Publication of "Administrative Practices at Canadian Universities and Colleges"	1961	Rapport d'une enquête : **Administrative Practices at Canadian Universities and Colleges.**
First C.A.U.T. Group Flights to Europe		Premiers vols de groupe de l'A.C.P.U. vers l'Europe
Submission on the Immigration Act		Mémoire relatif à la loi sur l'immigration
First regular advertisements of positions vacant, etc., in **Bulletin**		Première réclame sur les postes vacants, etc., publiée dans le **Bulletin**
C.A.U.T. Statement on Equality of Opportunity for Women Faculty Members subscribed to by presidents of 25 universities		Déclaration de principes de l'A.C.P.U., signée par vingt-cinq recteurs : **Equality of Opportunity for Women Faculty Members.**

First report on teaching-load		Premier rapport sur les tâches d'enseignement
Initiation of Commission on University Government		Projet d'une commission d'enquête sur l'administration de l'université
First report of Committee on University Financing	1962	Premier rapport du comité du mode de financement des universités
Study of R.C.M.P. activities on university campuses		Étude des activités de la Gendarmerie royale du Canada sur le territoire des universités
Submission to the Carter Commission (on taxation)		Mémoire soumis à la Commission royale d'enquête sur la fiscalité (Carter)
Appointment of Witold Weynerowski as Research Officer		Nomination de Witold Weynerowski au poste de chargé de recherches
Meeting of C.A.U.T. officials with the Prime Minister and the Minister of Justice on R.C.M.P. activities	1963	Rencontre de délégués de l'A.C.P.U. avec le Premier ministre et le Ministre de la Justice au sujet des activités de la Gendarmerie royale du Canada
First issue of the **Newsletter**		Première livraison du **communiqué**
Publication of C.A.U.T. Policy Statements on — — Nomination of Faculty Members for Political Office — Sabbatical Leave — Academic Freedom and Tenure and Investigational Procedures		Énoncés de principes de l'A.C.P.U. en matière de : **Nomination of Faculty Members for Political Office;** **Sabbatical Leave;** **Academic Freedom and Tenure and Investigational Procedures.**
Establishment of the J. H. Stewart Reid Memorial Fellowship Trust		Création du Fonds de bourses de perfectionnement à la mémoire de J. H. Stewart Reid
Publication of volume of essays on university government, A PLACE OF LIBERTY	1964	Publication d'un recueil d'exposés sur l'administration de l'université : **A Place of Liberty.**
Report of Committee on Year-Round Operation of Universities		Rapport du comité d'étude sur le fonctionnement de l'université à longueur d'année
Appointment of Percy Smith as Executive Secretary		Nomination de Percy Smith au poste de secrétaire général
Brief to the Committee on Broadcasting		Mémoire déposé au comité de la radiodiffusion

Report on Research Assistance in the Humanities and Social Sciences		Rapport de l'étude : **Research Assistance in the Humanities and Sciences.**
Report on Tenure in Canadian Universities other than those of Quebec (Soberman)		Rapport Soberman sur la stabilité de l'emploi dans les universités du Canada, hors du Québec
Representation by the C.A.U.T. President to the Prime Minister on Security Investigations and Clearances, and Review Procedures		Le président de l'A.C.P.U. fait des représentations auprès du Premier ministre sur les enquêtes aux fins de sécurité, les sélections sous le rapport de la sécurité, la procédure de vérification des dossiers.
First detailed report on Fringe Benefits		Premier rapport détaillé sur les avantages sociaux
Program of Visits by Duff-Berdahl Commission on University Government		Itinéraire des membres de la Commission Duff-Berdahl sur les structures administratives des universités
Appointment of Edward J. Monahan as Associate Executive Secretary	1965	Nomination d'Edward J. Monahan au poste de secrétaire général adjoint
Appointment of Mireille Lapointe as Research Officer		Nomination de Mireille Lapointe au poste de chargé de recherches
Submission to the Bladen Commission on University Financing		Mémoire soumis à la Commission d'enquête sur le financement de l'enseignement supérieur au Canada
Policy Statement on Organization of the University Year		Énoncé d'une politique concernant la subdivision de l'année universitaire
Resolution on United States Copyright Law (forwarded to Washington)		L'A.C.P.U. adopte le texte d'un communiqué sur le **Copyright Law** des États-Unis; le communiqué est adressé à Washington.
Co-sponsorship of Study of University Pensions in Canada		L'A.C.P.U. est l'un des parrains de l'étude sur les régimes de caisses de retraite des universités du Canada.
Submission to the Governments of Canada and the Provinces on "The Public Financing of Universities"		Mémoire soumis aux gouvernements du Canada et des provinces sur **le mode de financement des universités par les deniers publics**
Report on "Security of Tenure of University Teachers in the Province of Quebec" (Hurtubise)		Rapport Hurtubise sur **la stabilité d'emploi des professeurs d'universités de la province de Québec**

Publication of the Duff-Berdahl Report **University Government in Canada**	1966	Publication du rapport de la Commission Duff-Berdahl sur la **structure administrative des universités au Canada**
Publication of the Ingraham Report **Faculty Retirement System in Canadian Universities**		Publication du rapport de la Commission Ingraham sur les **régimes de retraite pour le corps professoral dans les universités canadiennes**
Report on some legal aspects of Educational Television		Rapport d'une étude de certains articles de la législation sur la diffusion de l'enseignement au moyen de la télévision
Other studies now in progress include a survey of faculty workload; a survey of the status of women in Canadian Universities; a study of sabbatical leave policies; a joint study of University costs.		Quelques études en cours : une enquête sur la besogne du professeur d'université; une étude du statut du professeur féminin dans les universités du Canada; une étude des régimes de congé sabbatique; une étude des coûts de fonctionnement des universités (étude menée conjointement).

C. A. U. T. — A. C. P. U.

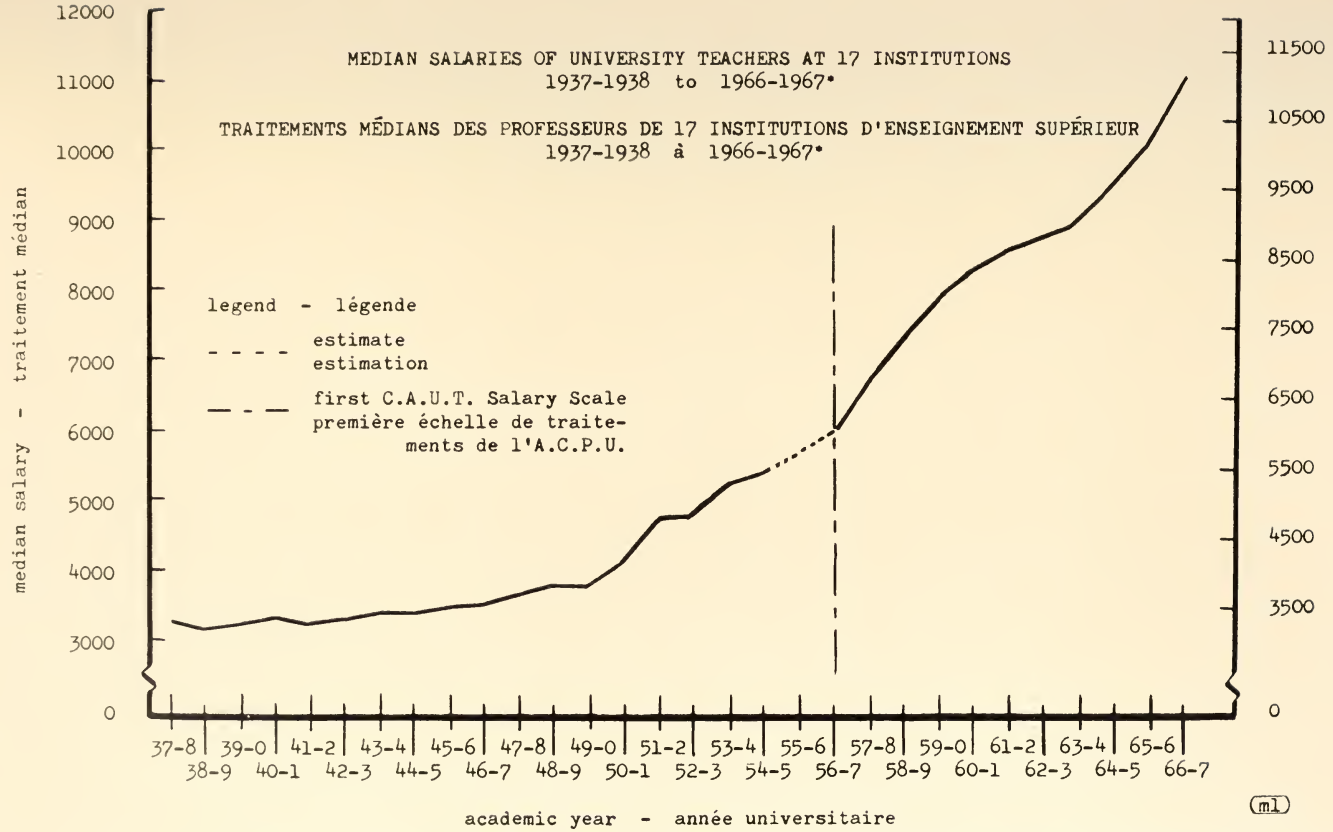
Fiscal Year — année d'exercice	Median Salary — traitement médian	Revenue — recette	Annual fee — cotisation annuelle
1952-1953	4,860 *	1,338.00	2.00
1953-1954	5,249 *	1,836.00	2.00
1954-1955	5,423 *	1,652.00	2.00
1955-1956	—	2,607.00	2.00
1956-1957	5,892 *	7,481.77	3.00
1957-1958	6,713 *	8,777.32	3.00
1958-1959	7,445 *	23,645.51	7.00
1959-1960	7,979 *	27,334.25	7.00
1960-1961	8,404 *	39,705.11	10.00
1961-1962	8,646 *	43,916.60	10.00
1962-1963	8,894 *	49,685.19	10.00
1963-1964	9,103 *	59,370.53	10.00
1964-1965	9,668 *	70,117.89	10.00
1965-1966	10,250 **	118,333.36	14.00
1966-1967	11,175 ***	130,850.00 ****	14.00

* Salaries and Qualifications of Teachers in Universities and Colleges, 1964-65, Dominion Bureau of Statistics, Education Division, Higher Education Section, Catalogue No. 81-203, p. 13.
Traitements et qualification des professeurs des universités et collèges, 1964-65, Bureau fédéral de la statistique, Division de l'éducation, Section de l'enseignement supérieur, nº 81-203, p. 13.

** Bulletin quotidien, Bureau fédéral de la statistique, Division de l'information, vol. XXXV, nº 72, le jeudi 15 avril 1966, p. 2.

*** Daily Bulletin, Dominion Bureau of Statictics, Information Division, Friday, February 3, 1967.

**** Estimate
Estimation



* *The group of 17 institutions, surveyed annually by D.B.S. since 1937-1938, was increased to 19 for 1966-1967.*

* Depuis 1938-1939, le B.F.S. publie annuellement les traitements médians des professeurs de 17 institutions. Ce nombre passe à 19 en 1966-1967.

C.A.U.T. PRESIDENTS — PRÉSIDENTS DE L'A.C.P.U.

1951-1952	F. A. Knox (Queen's)
1952-1954	F. S. Howes (McGill)
1954-1956	V. C. Fowke (Saskatchewan)
1956-1958	H. W. McCready (McMaster)
1958-1959	C. L. Barber (Manitoba)
1959-1960	H. M. Good (Queen's)
1960-1961	J. H. Aitchison (Dalhousie)
1961-1962	A. W. R. Carrothers (U.B.C.)
1962-1963	Émile Gosselin (Laval)
1963-1964	R. W. Torrens (Western)
1964-1965	Bora Laskin (Toronto)
1965-1966	Jacques St-Pierre (Montréal)
1966-1967	Gideon Rosenbluth (U.B.C.)

NATIONAL OFFICE STAFF
PERSONNEL DU SECRÉTARIAT PERMANENT

J. Percy Smith, Executive Secretary — *secrétaire général*

Edward J. Monahan, Associate Executive Secretary — *secrétaire général adjoint*

Mireille Lapointe, Research Officer — *chargé de recherches*

Clerical staff — *commis aux écritures :*
Mrs. Marjorie Bond, Mme G. Fortin, Mrs. Velma Reid.

THOUGHTS ON THE INGRAHAM REPORT

D. C. Baillie *

When Dr. Mark Ingraham of Wisconsin and Mr. Samuel Eckler of Toronto agreed to investigate retirement systems in Canadian universities, their task was defined to be :

1. To study the retirement annuity plans in force at Canadian universities and colleges, and relevant governmental social security measures;

2. To explore and report on suitable patterns and agencies for pension plans which could provide for (a) adequate income throughout the pensioners' periods of retirement, and (b) mobility of members of the academic community, both within Canada and between Canada and other parts of the university world with which it has relationships; and

3. To make appropriate recommendations on these matters.

Background

We C.A.U.T. members have for many years been individually and collectively concerned about 2(a) and 2(b), and our continued concern has now led to the present report. As individuals we have usually had only a secondary interest in 'patterns' (e.g. formulae or other methods used to determine the exact amount of pension) and 'agencies' (i.e. where the money would come from, how it would be invested, who would administer the plan). But our partners in sponsoring the present report — the A.U.C.C. and the C.A.U.B.O. — have, of course, a stronger concern about patterns and agencies, as they may affect costs to the universities. It is noteworthy that the authors of the report were *not* asked to estimate full costs of any recommendation they might make. This task is left to the individual university.

How did the investigators go about their task ? Except for a four-page postscript by Mr. Eckler, Professor Ingraham undertook the

* D. C. BAILLIE, Associate Professor of Mathematics at the University of Toronto, served as a member of the Steering Committee for the Ingraham Study.

writing of the report, which he divided into 15 short chapters, totalling 88 pages. He points out in his preface that his style is highly personal; he hopes "that the report will read as if it was written by an individual, not by a committee", and this hope is fulfilled.

His English is succinct and clear. Words like vesting and portability, which may mean different things to different readers, he sets out to avoid. Dr. Ingraham also eschews the language of pedantry. He enlivens his exposition with memorable similes and witty anecdotes, even inventing one of the latter ad hoc. In short, the English is a pleasure to read, and it would be a pity to deprive anyone of this pleasure by quoting a single bon mot.

The investigators collected the written descriptions of virtually all the different "patterns and agencies" in use by Canadian universities in 1965; they also had the detailed schedules published by the C.A.U.T. In addition, Dr. Ingraham made personal visits to the majority of Canadian campuses, where he interviewed members of the teaching staff — both junior and senior — as well as administrators. He decided, however, not to list the specific features of individual university plans, but rather to refer in his text to those common attributes that could fairly be said to characterize broad groups of university pension plans in Canada. This choice certainly makes for clearer exposition.

Also, the value of any detailed 1965 data was greatly impaired by the advent of the Canada and Quebec Pension Plans in 1966. Each university visited in 1965, and even in 1966, was trying to decide just what accommodation it would make to the exigencies of these new tax-raising devices. Some plans also happened to be in the midst of radical and prolonged surgery as well. With few exceptions, each university plan is autonomous.

Even without these special confusions, no investigators could reasonably have been asked to produce a panacea that would in one single dose both bring about adequate pensions and at the same time eradicate the penalties against mobility that are inherent in many pension plans.

The Problems of Adequacy vs Mobility

Barring inflation, pension plans decently set up forty and fifty years ago would to-day be giving adequate pensions, but they have been undone by the inflation of the past twenty years. An obvious solution is to gear pensions to salaries in force just before retirement, and even after retirement.

This remedy, however, still leaves penalties on mobility. The mobile teacher will (ceteris paribus) suffer in comparison with the one who stays put. The latter will have his total years of service applied to his final average salary. The former will have each block of early service years applied to a salary that was presumably lower than his ultimate salary. Dr. Ingraham gives numerical examples of this penalty on page 30 and pages 51-52 of the report.

To bring the mobile man's pension up to the static man's, the early years of service would have to count for as much as the later years. Someone would have to pay for the difference in salaries. Under our provincial educational autonomy, it is unlikely that the province in which the teacher does his final teaching would accept the whole cost. Nor would his earlier employers wish to undertake to pay for a pension based on a distant salary over which they had no control. Asking the federal government to play the necessary Santa Claus is rejected by Dr. Ingraham and Mr. Eckler on pages 31-32 of the report. Their reasons are certainly cogent, but I should like to have seen all national schemes explored at greater length by the authors. For example, they do not mention the possibility of interprovincial reciprocity arrangements — even to condemn it; nor the possibility of some per capita grant arrangement.

Unpenalized Mobility

If there is to be no penalty at all on mobility, the ideal would be that one year of university teaching at a certain salary should produce the same pension benefit, regardless of where the service is rendered. We have just seen the difficulties of achieving this ideal under a 'final salary' plan.

Career Earnings Plan

A common plan that does achieve this ideal is the 'career earnings' plan. Under such a plan, a teacher's pension at retirement is, say, 2% of his total earnings up to retirement. A salary of $4,000 earned in one year generated $80 of annual pension, regardless of where it was earned, and regardless of the age when it was earned.

Although perfect on this one score, these plans are proving to fall far short of perfection on the score of adequacy. As inflation continues to rot our economy, each fixed piece of pension associated with an early year of teaching continues to lose its buying power. The man who was

young and handsomely paid at $4,000 in 1938 is now thinking about his pension, and taking a dismal view of the $80 associated with the year 1938. Even with no inflation, the 2% factor is common use was still set too low for university careers of say 35 years, in which a teacher's salary might reasonably be expected to double or triple. With inflation, a 2% factor has proved disastrously low.

Dr. Ingraham outlines the advantages and disadvantages of the basic types of pension plan in Chapter 9 of the report. He sets out to test each one on the score of adequacy and mobility, and on page 52 he states flatly that the career earnings plan "fails to meet the tests of either adequacy or mobility". On page 53, however, he does admit that there is no penalty attached to moving between two universities, each under this plan — as we have just observed. On the same page he points out that the cost to the employing university rises markedly with the employee's age, a fact which he has other reasons to dislike. The fact may be distasteful, but in a study of adequacy of pensions and penalties on mobility, the age incidence of cost to the employer is not directly relevant.

It is true that the higher pension cost of employing an older man under the usual career plan could conceivably act as a deterrent to his employment, and thus impede his mobility, but Dr. Ingraham does not choose to advance this argument. It may have some validity for an industrial employer trying to minimize total costs of production, but I know of no evidence that it has affected the employment policy of a university.

Money Purchase Plans

Of the three basic types of plan explored in Chapter 9, Dr. Ingraham prefers the 'money purchase' plan to either the 'final salary' or the 'career earnings' plan. As in the career earnings plan, the teacher's ultimate pension under money purchase depends on his total career earnings, but not in such a simple way. Each year the teacher contributes a fixed level percentage of his salary, say 5%, and his employing university another fixed level percentage, say 10%.

These contributions may be used each year to buy from a seller of annuities whatever annuity, deferred to say age 65, the money will purchase. The same money will buy much more pension for the younger teacher than the older, more for a man than a woman of the same age,

more pension if the retirement age is raised above 65, and generally more in Canada than in the U.S.A.

The level rate of contribution by both teacher and university means that the total pension bought during a teacher's career is governed much more by his early salaries, and much less by his later ones, than is the case in the career earnings plan. This being so, it is, in the form just described, going to provide even *less adequate* pensions under inflation than does the career earnings plan.

Money purchase plans on the common 5% + 5% basis were thus proving to be inadequate even in the 1940's. In the past two decades this 10% total has generally been moved up to 15%, and even these plans are not currently producing adequate pensions to teachers recently retiring with many early years on the old 5% + 5% basis (e.g. at U.B.C.).

Modified Money Purchase Plans

In modified money purchase plans some, or all, of the money is not used to make any definite purchase at the time it is contributed, but instead is invested to earn whatever it will between the time of contribution and the time of retiring on pension, or even on to death. If the investments are made in common stock it is widely believed that these will provide a substantial hedge against inflation. The College Retirement Equity Fund sponsored by the Teacher's Insurance and Annuity Association has operated very successfully on this basis during the stock-market boom of the past 14 years. The dollar value of each stock unit has risen greatly, and pensions payable in such units have more than held their own in purchasing power.

Before CREF was introduced in 1952, extensive tests were made to see what would have happened if a similar system had been in force throughout the twentieth century. The teacher unlucky enough to retire in 1931 on a pure CREF-type pension would have fared rather poorly in the next six years. For this reason, no more than 75% of the money going into TIAA-CREF on behalf of an individual teacher may be invested in CREF units.

Dr. Ingraham prefers level money purchase plans mainly because the university's contribution is neutral as to age, and because CREF deals with this type of plan. He does not explore the possibility of rehabilitating the career earnings plan by allowing it to invest in equities

also. One can guess that a 3% career earnings plan, with perhaps 40% of the dollar premium cost each year being invested in equity units, would produce just as adequate pensions as the typical 15% TIAA-CREF level money purchase plan. It would almost certainly respond faster to general inflation in salaries, since so much more of the total investment would be related to the teacher's salaries in his later years. The high cost to the employing university after age 60 might exert a downward pressure on salaries at these ages, however.

It is also worth noting that the positive correlation between stock prices and inflation has broken down in recent years in countries like Italy and Germany, and now through most of 1966 in North America. Real estate may turn out to be as good a hedge against inflation as common stocks. Although not a conventional investment for pension funds, rental real estate would be worth exploring by the universities of Canada. A part of their pension contributions, invested to build conveniently located housing units at competitive rentals, could conceivably solve two of the universities' most urgent problems in one bold stroke. Dr. Ingraham and Mr. Eckler dit not choose to stray into this terra incognita, however.

Provincial regulations, e.g. those made under the Pension Benefits Act of Ontario, now permit a pension fund to invest only 7% of its assets directly in real estate, and not more than 10% in any one corporation. One or the other of these figures would have to be relaxed considerably to make real estate rentals a serious hedge against inflation. There is always the danger of governmental rent control killing the hedge, as well.

The Proposed Models

Faced with the Canadian preference for final salary plans and his own for mony purchase plans, Dr. Ingraham has produced two very ingenious hybrids between them. In Chapter 12 he describes these two models, stressing that the ideas they embody are more important than the actual figures chosen for illustration.

MODEL I

This is basically a money purchase 14% plan, which is expected to take care of the younger teacher's problems, both the immediate one of mobility and the long-range one of adequacy. The problem of adequacy for the present older teacher is met by introducing a 'final average

salary' floor, based on 1½% of the teacher's highest five year average salary, multiplied by the number of years served at the given university. This floor includes CQPP pension, but not OAS pension. The OAS pension is deemed to belong to the individual. In addition, the "floor" pensioner will be paid the excess that, it is hoped, will develop between the one half of the 14% invested in equity units and the other half invested in fixed income securities.

MODEL II

This is basically a final average salary plan, accordingly using 1¾% rather than the 1½% of model I. It differs importantly from most such plans now in force in Canada, in that it provides for upward adjustments to meet rises in the cost of living (to the extent that the CQPP does) in the years after retirement. The final salary formula again includes the CQPP pension, but not the OAS pension.

A teacher retires at normal age 68 under both models. With 40 years' service at the same university model II will provide him with a pension equal to 70% of his final average salary, and he will have his OAS pension plus any personal savings on top of it. With his university and CQPP pension geared (ultimately) to the current salary levels in Canada and his OAS to the cost of living, his real income after retirement will be unimpaired by *moderate* inflation. The widespread use of 'indexed' plans may be self-defeating, however, mainly to the extent that higher wage demands and prices follow the higher taxes and contributions that become necessary.

To protect the teacher who moves around, model II requires that he always has to his credit a money purchase fund accumulated from at least 11% of his salaries (less CQPP tax). As in model I, this would be split evenly between fixed-income investments and equities. Any teacher could choose either of the two pensions under model II, but would have to stay with his decision. Under model I the unpredictable component is the same in both formulae, so that the larger one at retirement stays the larger thereafter.

Even if every university in Canada does decide to adopt a uniform plan based on one of these two models, there will still remain some questions for the mobile teacher :

(i) what if he moves out of Canada for part(s) of his teaching career ?

(ii) into Canada in the later half of his career ?

(iii) will the money purchases investments made while he is at University A perform better or worse than those made while at University B ?

(iv) how will the various bits of pension, including the guarantees, be administered ?

Management

Dr. Ingraham in effect answers these four questions in Chapter 11 by recommending an extension of TIAA-CREF to Canada. This move, along with his preference for model I as the standard plan in Chapter 12, would, he believes, take care of most of the problems related to Canada-U.S.A. migration. Under (ii), a teacher coming to Canada from a U.S. university that was not a TIAA-CREF participant, or one coming from another country, might still prefer a final average salary plan, however.

Although Dr. Ingraham recognizes that individual Canadian life insurance and trust companies are now capable of handling either of his models, he would rather see a large single company with "personnel devoted to research in improving university plans". This is the most cogent argument he advances for using TIAA-CREF.

He does not suggest that it could do the job more cheaply than any one of the existing Canadian mutual life companies. Since there are no shareholders involved, the only easily discernible cost advantages enjoyed by TIAA-CREF are : the absence of agents' commissions; the original Carnegie subsidy for expenses; less overhead cost for sale promotion; and the possibility of a better investment performance. The first two of these affect only a slight part of the cost of a large new pension plan to-day; the third can be bargained about; the fourth is the telling factor. Canadian interest rates earned on fixed-income investments have traditionally exceeded U.S.A. rates, but the gap has been narrowing recently, and in any case Dr. Ingraham envisages TIAA investing in Canadian securities. As to equity investments, no-one can say whether Canadian or Americans will make better decisions in the continental stock-market, although each group presumably has the advantage of some extra knowledge to use in its own market. In the balance, the actual cost of setting up an effectively Canadian branch of TIAA-CREF might easily exceed the marginal cost to a large

Canadian insurance or trust company of taking on all the Canadian universities in a single new pension fund.

The practical argument against the single large Canadian insurer or trustee is the question, which one ? Regional rivalries and suspicions would doubtless kill the proposal at the outset. A consortium of Canadian companies might, however, be able to set up a new, nationally acceptable company, — particularly if it were labelled "non-profit". Although it has almost no relevance to the realities of pension costs in Canada, this particular adjective seems to have generally strong emotional effects among Canadian voters, even amongst university teachers !

The equity (variable annuity) section would be automatically non-profit (and non-loss, one hopes), since the dollar value of an equity unit as determined each year would take into account not only the full gain or loss in the stock-market but also any loss expected to be caused by the secular trend of diminishing death rates amongst pensioners. If history to date is any guide, the guaranteed (non-variable) annuity section would be unlikely to produce a long-run profit for the guarantors ! If any did develop, it could be used up as dividends.

Retirement Age

Dr. Ingraham devotes the whole of Chapter 4 to this topic. University policy on retirement age is important in many ways. It affects the teaching of students, the rate of staff promotion, and the rate of expansion.

Raising the retirement age will tend to raise the average salary per staff member. But it will greatly improve the benefit/cost ratio for pensions. That is, it will either give more pension at the same cost or the same pension at less cost. Dr. Ingraham mentions that the total pension benefits in a money purchase plan can be improved by about 10% for each year that the age is raised. Thus a rise from age 65 to age 68 might increase the total pension by about one third.

A final salary plan financed by a level contribution rate would show exactly the same improvement in pension, *provided* that the whole improvement in benefit/cost ratio were applied to improve the pension formula. It is much more likely, however, that the pensioner would enjoy only the direct improvement of counting an extra three years in the formula (and whatever rise in average salary he might obtain), while the rest of the improvement would find its way into a

lowered cost to the university. Thus in non-inflationary times, a man with 30 years' service to age 65 would have his pension improved by 10% on account of 3 years' extra service to age 68 and perhaps another 5% or 6% for 3 years' improvement in his average salary.

But one must note that, at present rates of annual salary increases, the same man might gain 27% from the three year salary improvement alone, making a 40% gain in all ! In such an inflationary case, on a final average salary plan, the teacher's pension improvement may turn out to be somewhat higher than the whole improvement in benefit/cost ratio. Where this is true, the delay in retirement will not be reducing the effective pension cost to the university.

It is Dr. Ingraham's considered opinion, based on his years as Dean of Arts at the University of Wisconsin, on general trends in vitality and vigour, and on the financial aspects of the matter, that Canadian universities which are still on the age 65 rule should now change to "about 68", and he looks forward "to the day when it can be made still higher".

Adequacy

Current pensions to university teachers are commonly said to be inadequate. But how does one define the word ? Dr. Ingraham devotes Chapter 5 to the problem.

As a measure of what he judges to be disgraceful inadequacy, he suggests that a basic floor for teachers already on pension in 1966 be one-third of the average salary *currently* paid to a full professor (two-ninths for single persons and widows). The floor would not change automatically with future changes in this salary level — as was once proposed at the University of Saskatchewan — but would be allowed to fluctuate with the cost of living, changing at most 4% in one year. OAS would be additional to this floor. CQPP of course deliberately ignores most of Canada's present aged and is thus irrelevant to their problems.

(An enterprising retired 66-68 year-old can still get a tremendous return on a small investment made in CQPP taxes before he reaches the magic age of 70, but it's not many dollars per month.)

For those who will retire after 1966, Dr. Ingraham suggests that a proper standard should give a married couple a combined income from two OAS, the man's CQPP, and the university plan, of "approximately 60% of final average salary" after 35 years' service.

Thus the numerical examples on page 71 for his model II plan show that such a married man, retiring on an average salary of $15,000 will start with a total pension from all sources of 63.5% of this salary. Dr. Ingraham arrives at the University's share of this ($6,480) by first calculating the university pension for a single person ($7,938) and then reducing the $7,938 actuarially to permit the reduced pension to be continued after the death of *either* spouse, at two-thirds of its previous amount. The single man or woman is of course not subject to this reduction.

In the same table of examples, a single woman retiring on an average salary of $11,000 would draw $5,488 each year from the university plan, whilst a married man on the same salary would draw only $4,480, and this would be reduced to only $2,987 if he should outlive his wife. When the man's wife is over 65 it is true that the Canadian tax-payer will generally make up $900 of the $1,008 discrepancy (through her OAS pension).

Widows

Dr. Ingraham does not approve of "free" pensions for widows. On page 78, in his Remarks on the Responsibilities of the Individual and of Society, he states "I believe that the marital status of the individual should not determine his compensation". Regarding pensions as part of their compensation, he therefore sets out to keep the married man and the single man in actuarial balance. His models I and II are designed to meet minimal standards for the married couple, and the single man accordingly enjoys "somewhat more than minimal post-retirement support" — about 22% more money per annum from the university at the outset.

An actuary might agree that this preserves rough equity between two men, but what about the single woman ? In model II she gets the same pension as the single man of the same age. But she can expect to outlive him by several years. The only way to achieve the desired actuarial equity would be to reduce her formula pension, by about 15%. This reduction would occur automatically, and perhaps unnoticed, under a money purchase plan like model I. But in a final salary plan like model II there might be more trouble !

It is also an actuarial fact that a pension to a man of 68 continued at one-half to his widow of about the same age, is worth very little more than the same pension to a 68-year-old single woman. "Free"

half-pensions to widows in Canadian plans thus help to preserve equity between the sexes.

Cost of Revising Plans To-day

Dr. Ingraham's and Mr. Eckler's main concern was to find methods of improving plans so that young teachers now entering them will not be disappointed with their final pensions. No-one could have dealt with this task better than this team. The objectivity of their analysis and the ingenuity of their suggested solutions are both admirable.

Nevertheless, the fact remains that any serious improvements for the present pensioners and middle-aged and older teachers will cost a great deal of additional money, entirely beyond the 'normal' rates shown in the report. The report touches on this problem very lightly. There are two sentences devoted to it in Chapter 7 (Costs), where the pregnant phrase "a large accrued liability" is mentioned, almost en passant, at the bottom of page 39. A non-actuary will read Chapter 10 (Actuarial Reviews) with very little sense of alarm. The surface looks calm; but the monstrous accrued liability does lurk beneath it. This monster barely touches the surface in the last sentence of Chapter 13 (Revision of Plans).

Our AUCC partners in sponsoring the report, especially those representing the older universities, will want to know all about their own monsters before they move very far from shore, and someone will have to tell them. Messrs. Ingraham and Eckler had neither the time, the money, nor the masses of data about past service, salaries, and pensioners' mortality, that are needed to provide the answers. It usually takes a long time to assemble these data for any one of the older universities, and a considerable further time to analyse them, deduce suitable tables and scales from them, and finally get the resulting financial calculations made — even in the push-button age. However, in the plans proposed in the report, withdrawal from service or death in service are meant to have very little cost effect, so that the university's actuarial advisors could forgo a good part of the work in the second and third stages of the preceding sentence. Each university must still make its own investigation, since past service funding arrangements to date have been so heterogeneous in Canada — both between universities and within the single university.

The moral is : if Canadian universities are to implement the report on a national basis, within say the next five years, they must start their investigations right now.

General

Other matters discussed by Dr. Ingraham include : secondary benefits such as those payable on disability or death in service (in Chapter 8); accommodation to the CQPP (Chapters 3 and 8); work after retirement (Chapter 14); and also in Chapter 14, a novel use of sections of the Normal (Gaussian) curve as models for uninflated and inflated salary scales — which ties in very neatly with compound interest multipliers.

Further matters, close to our C.A.U.T. hearts, are : administrative discretion (Chapter 8); internal management (Chapter 11); continued national study (Chapter 11); who should consider revisions (Chapter 13); rights of the present members (Chapter 13); and conflicts of interests (Chapter 14). In discussing all of these, Dr. Ingraham shows good-humoured impartiality. He strongly urges effective faculty representation, both on major committees revising plans, and on continuing committees charged with interpretative decisions. He urges minimum room for discretionary decisions by the university administration, as much to protect itself as others.

Under "conflicts of interests" he deals in turn with the primary identity of interest of the following groups : "the public", "officialdom"; "governing boards", "university administrators"; "the faculty and faculty groups"; and "experts". Each is discussed in a friendly but pungent way. He points out the latent conflict of interests between young and old teachers in a pension plan, sometimes unrecognized. His kind words about actuaries, here and elsewhere in the report, are very encouraging to us who toil in this little-known profession. What he has to say about the other groups will, one hopes, be equally enjoyable to them.

The University of Toronto Press and Les Presses de l'université Laval have printed the report beautifully, and on a rather short notice. The single obvious flaw in the U. of T. edition is the omission of the left-hand side of the equation $S(1) = \exp(f^2+a)$ at the bottom of page 84.

The quoted value r=1.74 on page 85 should be r=1.76. An assumed interest rate slightly less than 4½% would preserve the desired 1.74, however.

A single minute flaw in logic also occurs on page 85, where KS(t) is apparently treated near the top of the page as a rate of pay per 40 years, but at the bottom as a rate per annum. Since F is already

40 times a year's pay, the necessary accumulation is only .196F and the 18% rate follows directly. In any event, Dr. Ingraham's practical intuition leads him to make the required adjustment in the last line of page 85.

Actuary's Postscript

In this section, Mr. Eckler expresses his general agreement with Dr. Ingraham's main contentions and recommendations. The agreement between the two collaborators was not reached in a casual way. It is the result of a prolonged and serious dialogue. Agreement between two investigators of their outstanding calibre adds a great deal to the forcefulness of their message; it cannot be lightly dismissed.

Mr. Eckler says in closing that the report may be "vulnerable on minor details but invulnerable in its major arguments and proposals". Except for some qualification of the proposed machinery, I have to agree with Mr. Eckler.

D. C. Baillie,
University of Toronto.

Correction : AUT Concessions Hand book.

A note in the March **Newsletter** referred to the availability through the AUT of a concessions scheme for members of C.A.U.T. visiting Great Britain. It consists mainly of various trading concessions but also includes some insurance plans. AUT has prepared a special letter of Introduction and a Concessions Hand book. We have been informed that members wishing to avail themselves of this privilege should await arrival in England before applying for the necessary letter of introduction. Application is to be made to the General Secretary, Association of University Teachers, Bremar House, Sale Place, London, W. 2.

CONSEIL DES ARTS DU CANADA
1964-1965[1] et 1965-1966[2]

CANADA COUNCIL
1964-1965[1] and 1965-1966[2]

— humanités et sciences sociales
— *Humanities and Social Sciences*

Le Conseil des Arts du Canada, dans son programme d'aide aux humanités et aux sciences sociales, accorde des subventions de bourses de maîtrise (programme abandonné après 1964-1965), de doctorat, de perfectionnement, des subventions de recherche et des subventions aux bibliothèques. Des tableaux statistiques sur ces chiffres selon la discipline et l'université suivent cet article. Nous avons fait le relevé d'après la liste des bénéficiaires, liste publiée en appendice du rapport.

Le Conseil apporte également son aide financière dans les humanités et les sciences sociales par l'octroi de sommes aux publications, à l'organisation de conférences, à la participation à des congrès, de même qu'il subventionne des échanges de professeurs.

Conseil des Arts du Canada :
1964-1965 et 1965-1966

Canada Council
1964-1965 and 1965-1966

	1964-1965		1965-1966		augmentation — *increase*		
	$	no	$	no	$	%	
publications [3]	84,940	(16)	136,418	(27)	51,478	(60.6)	*Publications* [3]
échange de professeurs [4]	43,232	(18)	69,440	(20)	26,208	(60.6)	*Exchange of Scholars* [4]
conférences [5] (congrès)	69,776	(32)	97,505	(45)	27,729	(39.7)	*Conferences* [5]

1 The Canada Council, Eighth Annual Report, 1964-1965, Ottawa, 96 p.
2 The Canada Council, Ninth Annual Report, 1965-1966, Ottawa, 104 p.
3 1964-1965: The Canada Council, Eighth Annual Report, Ottawa, pp. 77, 79.
1965-1966: The Canada Council, Ninth Annual Report, Ottawa, pp. 81-82.
4 1964-1965: The Canada Council, Eighth Annual Report, Ottawa, p. 80.
1965-1966: The Canada Council, Ninth Annual Report, Ottawa, pp. 84-85.
5 1964-1965: The Canada Council, Eighth Annual Report, Ottawa, pp. 71-72, 77, 79.
1965-1966: The Canada Council, Ninth Annual Report, Ottawa, pp. 82-84.

De 1964-1965 à 1965-1966, le Conseil a augmenté de $500 le montant des bourses de doctorat. De plus, au cours de cette dernière année d'exercice, quelques candidats parmi les meilleurs peuvent obtenir un montant supplémentaire de $1,000. Dans le même intervalle, les bourses de perfectionnement passaient de $4,000 à $5,500.

Conseil des Arts du Canada : valeur médiane des bourses et des subventions, 1964-1965 et 1965-1966.

Canada Council: median value of scholarships, fellowships and grants, 1964-1965 and 1965-1966.

	bourses de maîtrise — *Pre-master's scholarships*	bourses de doctorat — *Pre-doctoral fellowships*	bourses de perfectionnement — *Senior fellowships*	subventions de recherche à court terme — *Short-term research grants*
1964-1965	$1,500	$2,000	$4,000	max. $1,500
1965-1966	—	2,500 (+1,000)	5,500	max. 1,500

Mireille Lapointe,
chargé de recherches
Research Officer

TABLEAU I — Conseil des Arts du Canada : bourses et subventions (humanités et sciences sociales) selon la discipline, 1964-1965 et 1965-1966.

TABLE I — The Canada Council scholarships, fellowships and research grants (humanities and social sciences), 1964-1965 and 1965-1966, by field.

discipline	Bourses de maîtrise — *Pre-master's scholarships*	Bourses de doctorat — *Pre-doctoral fellowships*		Bourses de perfectionnement — *Senior fellowships*		Subventions de recherche, à court terme — *Short-term research grants*		*Field*
	1964-1965 [1] no	1964-1965 [2] no	1965-1966 [5] no	1964-1965 [3] no	1965-1966 [6] no	1964-1965 [4] no	1965-1966 [7] no	
anthropologie	1	13 (1)*	15	2	—	6	9 (1)*	*Anthropology*
architecture	5 (1)*	—	2	—	—	1	—	*Architecture*
administration	—	3	3	1	—	—	1	*Business Administration*
criminologie	—	1 (1)*	2	—	—	2	—	*Criminology*
droit	1	7	4	—	1	2	1	*Law*
économique	1	36 (6)*	50 (4)*	3 (1)*	2	10	17 (2)*	*Economics*
éducation	1	9	8	2	—	—	2	*Education*
études classiques	2 (1)*	9 (1)*	11	2	—	3	10	*Classics*
géographie	—	9	17 (2)*	1	—	2	8	*Geography*
histoire	5 (1)*	48 (4)*	86 (5)*	8 (1)*	9 (3)*	14	48 (3)*	*History*
lettres	8 (1)*	72 (5)*	119 (5)*	10 (1)*	13 (2)*	26	65 (3)*	*Literature*
linguistique	—	7 (2)*	8	1	1	2	4 (1)*	*Linguistics*
math.-statistiques	—	2 (1)*	6	2	3	1	—	*Maths-statistics*

TABLEAU I (suite) — Conseil des Arts du Canada : bourses et subventions (humanités et sciences sociales) selon la discipline, 1964-1965 et 1965-1966.

TABLE I (continued) — *The Canada Council scholarships, fellowships and research grants (humanities and social sciences), 1964-1965 and 1965-1966, by field.*

discipline	Bourses de maîtrise — *Pre-master's scholarships*	Bourses de doctorat — *Pre-doctoral fellowships*		Bourses de perfectionnement — *Senior fellowships*		Subventions de recherche, à court terme — *Short-term research grants*		*Field*
	1964-1965 [1] no	1964-1965 [2] no	1965-1966 [5] no	1964-1965 [3] no	1965-1966 [6] no	1964-1965 [4] no	1965-1966 [7] no	
musique	1	4 (1)*	10	1	—	1	5	*Music*
philosophie	3	27 (1)*	33 (1)*	2	2	6	9	*Philosophy*
psychologie	1	18 (2)*	24	1	3	3	5	*Psychology*
relations industrielles	—	—	3	—	—	—	—	*Industrial Relations*
sciences politiques	3 (1)*	27 (4)*	36	3	7	8	9	*Political Science*
sociologie	2	18 (1)*	33 (2)*	1	4 (1)*	2	9	*Sociology*
autres	4 (1)*	6	5	3	3	4	15 (1)*	*Other*
total	38	316	475	43	48	93	217	*total*
* refusées	6	30	19	3	6	—	11	* *declined*
TOTAL	32	286	456	40	42	93	206	*TOTAL*

[1] The Canada Council Eighth Annual Report, 1964-1965, Ottawa, p. 50.
[2] *ibid.*, pp. 51-58.
[3] *ibid.*, pp. 58-59.
[4] *ibid.*, pp. 63-65.
[5] The Canada Council Ninth Annual Report, 1965-1966, Ottawa, pp. 59-71.
[6] *ibid.*, pp. 71-72.
[7] *ibid.*, pp. 74-79.

TABLEAU II — Conseil des Arts du Canada : bourses et subventions (humanités et sciences sociales) selon l'université, 1964-1965 et 1965-1966.

TABLE II — The Canada Council fellowships, research grants and other grants (humanities and social sciences), 1964-1965 and 1965-1966, by university.

université / *university*	Bourses de perfectionnement — *Senior fellowships*				Subventions de recherche, à court terme — *Short-term research grants*				Subventions aux bibliothèques — *Research library collections*		Autres subventions de recherche — *Other research grants*	
	1964-1965 [1] no		1965-1966 [4] no		1964-1965 [2] no		1965-1966 [5] no		1964-1965 [3] $	1965-1966 [6] $	1965-1966 [7] $	no
Acadia	—		—		—		—		—	1,000	—	
Alberta	4		1		5		11		5,000	49,500	2,800	(1)
Bishop's	—		—		—		1		—	—	—	
Brandon	—		—		—		—		—	—	2,525	(1)
U. of B.C.	10	(1)*	6		5		22	(2)*	5,000	—	2,000	(1)
Carleton	2		3	(1)*	2		7		3,000	15,500	14,000	(2)
Dalhousie	2		—		3		3		—	39,000	—	
Guelph	—		—		—		1		—	—	—	
Lakehead	—		—		—		1		—	—	—	
Laurentienne	—		—		—		—		—	—	4,000	(1)
Laval	1		2		9		7		5,000	40,500	13,200	(2)
Loyola	—		—		—		2		—	2,000	—	
Manitoba	—		1		3		11	(1)*	—	20,500	5,800	(3)
McGill	2		3		7		12		5,000	23,000	45,300	(6)
McMaster	—		1		3		6		—	23,000	—	
Memorial	1		1		—		2		3,000	9,000	—	

TABLEAU II (suite) — Conseil des Arts du Canada : bourses et subventions (humanités et sciences sociales) selon l'université, 1964-1965 et 1965-1966.

TABLE II (continued) — *The Canada Council fellowships, research grants and other grants (humanities and social sciences), 1964-1965 and 1965-1966, by university.*

université / *university*	Bourses de perfectionnement / *Senior fellowships*				Subventions de recherche, à court terme / *Short-term research grants*				Subventions aux bibliothèques / *Research library collections*		Autres subventions de recherche / *Other research grants*	
	1964-1965 [1] no		1965-1966 [4] no		1964-1965 [2] no		1965-1966 [5] no		1964-1965 [3] $	1965-1966 [6] $	1965-1966 [7] $	no
Moncton	—		—		—		2		—	—	—	
Montréal	2		3		5		12		5,000	26,000	* 49,400	(5)
Mt. Allison	—		—		1		2	(1)*	—	—	—	
U. of N.B.	—		4	(1)*	5		3		—	20,000	1,500	(1)
Nova Scotia Tech.	—		—		—		1		—	5,000	—	
Ottawa	2		—		4		7		2,500	27,000	13,500	(3)
Queen's	2	(1)*	1		6		6		3,250	36,100	52,500	(3)
R.M.C.	1		1		2		2		—	—	—	
St. Dunstan's	—		—		—		1		—	—	—	
St. F. Xavier	—		1	(1)*	—		—		—	—	—	
Saskatchewan	2		2		3		8		—	34,500	18,300	(4)
Sherbrooke	—		—		—		—		—	8,000	—	
Simon Fraser	—		—		—		1		—	13,000	—	
Sir G. Williams	—		1		1		2		—	—	—	
Toronto	8	(1)*	8	(3)*	15		29	(3)*	2,500	55,000	10,500	(1)
Trent	—		—		1		2		—	—	4,000	(1)

TABLEAU II (suite)

Conseil des Arts du Canada : bourses et subventions (humanités et sciences sociales) selon l'université, 1964-1965 et 1965-1966.

The Canada Council fellowships, research grants and other grants (humanities and social sciences), 1964-1965 and 1965-1966, by university.

TABLE II (continued)

université / *university*	Bourses de perfectionnement — *Senior fellowships*		Subventions de recherche, à court terme — *Short-term research grants*		Subventions aux bibliothèques — *Research library collections*		Autres subventions de recherche — *Other research grants*	
	1964-1965 [1] no	1965-1966 [4] no	1964-1965 [2] no	1965-1966 [5] no	1964-1965 [3] $	1965-1966 [6] $	1965-1966 [7] $	no
United	—	—	—	2	—	—	—	
Victoria	1	2	—	4 (1)*	—	6,500	—	
Waterloo	1	1	3	11	—	—	—	
Waterloo Luth.	—	—	—	1 (1)*	—	—	—	
Western	—	2	4	8	5,000	19,500	5,500	(1)
Windsor	—	—	1	4 (1)*	—	—	—	
York	1	1	1	8	—	—	23,600	(1)
Autres — *Other*	1	3	4	15 (1)*	7,500	91,500	20,350	(3)
total	43	48	93	217	51,750	565,100	288,775	(40)
* refusées — *declined*	3	6	—	11	—	—	6,000	(1)
TOTAL	40	42	93	206	51,750	565,100	282,775	(39)

[1] The Canada Council, Eighth Annual Report, 1964-1965, Ottawa, pp. 58-59.
[2] *ibid.*, pp. 63-65.
[3] *ibid.*, p. 76.
[4] The Canada Council, Ninth Annual Report, 1965-1966, Ottawa, pp. 71-72.
[5] *ibid.*, pp. 74-79.
[6] *ibid.*, pp. 72-73.
[7] *ibid.*, pp. 80-81.

CONSEIL DES RECHERCHES MÉDICALES 1964-1965 [1] et 1965-1966 [2]

MEDICAL RESEARCH COUNCIL 1964-1965 [1] and 1965-1966 [2]

— subventions pour la conduite de recherches et l'acquisition d'appareils coûteux

— *Operating Grants and Major Equipment Grants*

Le Conseil des recherches médicales, établi en novembre mille neuf cent soixante, prend charge du travail qui relevait auparavant de la division médicale du Conseil national de recherches. Organisme virtuellement autonome, le Conseil des recherches médicales fonctionne dans le cadre administratif du Conseil national de recherches.

Jusqu'à 1964-1965, le Conseil des recherches médicales publiait, dans la dernière section du rapport du Conseil national de recherches, son compte rendu annuel sur l'aide apportée à la recherche scientifique dans les universités. En 1965-1966, le rapport du Conseil des recherches médicales fait l'objet d'une publication distincte.

Le Conseil des recherches médicales octroyait, en 1964-1965, une somme de $3,963,911 sous forme de subventions de recherche et de subventions à l'achat d'appareils. En 1965-1966, ce chiffre passe à $7,133,810, soit une augmentation de 80 pour cent.

---

1 Compte rendu annuel sur l'aide apportée à la recherche scientifique dans les universités, Conseil national de recherches et Conseil des recherches médicales, 1964-1965, Ottawa, pp. 225-271.

2 Compte rendu annuel sur l'aide apportée à la recherche scientifique dans les universités, 1965-1966, Conseil des recherches médicales, Ottawa, 48 p.

1 *Annual Report on Support of University Research, 1964-1965, National Research Council and Medical Research Council, Ottawa, pp. 225-271.*

2 *Annual Report on Support of University Research, 1965-1966, Medical Research Council, Ottawa, 48 p.*

Subventions du Conseil des recherches médicales pour la conduite de recherches et l'achat d'appareils, de 1963-1964 à 1965-1966.

Medical Research Council expenditures for Operating and Major Equipment Grants from 1963-1964 to 1965-1966.

Année d'exercice — *Fiscal year*	Subventions de recherche — *Research grants*	Augmentation par rapport à 1963-1964 — *Increase over 1963-1964*		Augmentation par rapport à 1964-1965 — *Increase over 1964-1965*	
	$	$	%	$	%
1963-1964	3,963,911	—	—	—	—
1964-1965	5,177,888	1,213,977	(30.6)	—	—
1965-1966	7,133,810	3,169,899	(80.0)	1,955,922	(37.8)

Durant la même période, les subventions du Conseil national de recherches ont marqué une augmentation de 91.6 pour cent. Mentionnons que des tableaux statistiques sur les subventions du Conseil national de recherches, selon la discipline et l'université, sont publiés dans le *Bulletin de l'A.C.P.U.* [3]

Subventions du Conseil national de recherches pour la conduite de recherches et l'achat d'appareils, de 1963-1964 à 1965-1966.

National Research Council expenditures for Operating and Major Equipment Grants from 1963-1964 to 1965-1966.

Année d'exercice — *Fiscal year*	Subventions de recherche — *Research grants*	Augmentation par rapport à 1963-1964 — *Increase over 1963-1964*		Augmentation par rapport à 1964-1965 — *Increase over 1964-1965*	
	$	$	%	$	%
1963-1964	8,913,349	—	—	—	—
1964-1965	13,257,370	4,344,021	(48.7)	—	—
1965-1966	17,078,441	8,165,092	(91.6)	3,821,071	(28.8)

Le rapport annuel du Conseil des recherches médicales fournit la liste des bénéficiaires des subventions de recherche et des subventions à

[3] Bulletin de l'A.C.P.U., tome 15, n° 2, décembre 1966, pp. 53-64 —, tome 15, n° 3, février 1967, pp. 65-81.

[3] *C.A.U.T. Bulletin, Vol. 15, No. 2, December 1966, pp. 53-64.* —, *Vol. 15, No. 3, February 1967, pp. 65-81.*

l'achat d'appareils. A partir de cette liste nous avons fait le relevé des subventions selon l'université. Nous avons compté pour *une*, la subvention qui est accordée à un groupe de professeurs. La rubrique *autres* groupe les subventions octroyées à des établissements de recherches médicales hors des universités, tels les hôpitaux, les instituts.

Citons un passage du rapport annuel qui décrit le programme d'aide financière du Conseil :

« Les subventions destinées à la conduite d'une recherche, accordées pour une ou plusieurs années, ont pour but de défrayer une partie des frais normaux de recherches; les subventions d'équipement ont pour but de faciliter l'achat d'appareils spéciaux de recherches coûtant plus de $5,000 ($3,000 en 1964-1965); des indemnités de voyage peuvent être accordées aux chercheurs afin de leur permettre de visiter d'autres laboratoires ou, dans des cas spéciaux, de participer à des conférences scientifiques internationales. En plus des subventions individuelles accordées aux chercheurs, le Conseil fournit une subvention générale de recherches au doyen de chacune des quatorze écoles canadiennes de médecine; les doyens utiliseront ces subventions à leur guise pour développer la recherche médicale dans leur université. » [4]

"Operating grants, which may be awarded on an annual or a term basis, are designed to assist in defraying the normal operating costs of research; major equipment grants provide for the purchase of units of special research equipment costing $5,000 (1964-1965: $3,000) or more; travel grants may on occasion be awarded to investigators in the medical sciences to enable them to visit other laboratories for purposes of furthering their own research programs and, under special circumstances, to attend scientific conferences. The Council also provides a general research grant to the Dean of each of the fourteen Canadian medical schools to be used at his discretion for the development of medical research in his university." [4]

Mireille LAPOINTE
chargé de recherches
Research Officer

---

[4] Compte rendu annuel sur l'aide apportée à la recherche scientifique dans les universités, 1965-1966, Conseil des recherches médicales, Ottawa, p. 3.

[4] *Annual Report on Support of University Research, 1965-1966, Medical Research Council, Ottawa, p. 2.*

TABLEAU I

Conseil des recherches médicales : subventions de recherche et subventions à l'achat selon l'université, 1964-1965 et 1965-1966.

TABLE 1

Medical Research Council Operating Grants and Major Equipment Grants by University, 1964-1965 and 1965-1966

université / *university*	Subventions de recherche — *Operating grants*				Subventions à l'achat — *Major equipment grants*			
	1964-1965 [1]		1965-1966 [3]		1964-1965 [2]		1965-1966 [4]	
	$	No	$	No	$	No	$	No
Alberta	327,235.00	(52)	434,476.85	(65)	60,575.00	(4)	68,643.29	(8)
U. of B.C.	450,035.00	(51)	535,641.00	(54)	23,876.00	(3)	105,858.00	(11)
Dalhousie	177,137.00	(21)	256,203.00	(30)	44,263.00	(4)	74,352.00	(8)
Guelph	—	—	35,244.00	(6)	—	—	—	—
Laval	140,162.00	(17)	215,942.00	(20)	12,000.00	(1)	22,208.00	(3)
Manitoba	287,477.00	(37)	323,485.62	(37)	57,247.00	(6)	20,226.26	(4)
McGill	891,639.69	(71)	801,299.69*	(70)	141,254.38	(12)	158,858.00	(10)
McMaster	16,000.00	(2)	30,850.00	(4)	7,250.00	(1)	8,800.00	(1)
Montréal	230,430.00	(28)	409,612.00	(42)	22,400.00	(2)	117,000.00	(10)
Ottawa	196,824.94	(31)	232,960.00	(30)	26,875.13	(3)	21,771.18	(3)
Queen's	269,800.00	(36)	325,880.05	(37)	26,000.00	(2)	14,738.00	(3)
Saskatchewan	122,700.00	(13)	167,070.00	(18)	39,080.00	(4)	30,115.00	(3)
Toronto	648,351.58	(66)	878,667.50	(89)	42,409.00	(6)	49,905.00	(7)
Waterloo	—	—	7,410.00	(2)	—	—	—	—
Western	281,160.00	(24)	372,575.00	(33)	30,325.00	(3)	75,186.00	(5)
York	—	—	2,800.00	(1)	—	—	—	—
Autres — *Other*	558,104.75	(63)	1,176,416.00	(108)	47,527.00	(7)	159,616.00	(18)
TOTAL	4,597,056.96	(512)	6,206,532.71	(646)	581,081.51	(58)	927,276.73	(94)

* incl. une subvention de $4,200 à Macdonald College

1 Compte rendu annuel sur l'aide apportée à la recherche scientifique dans les universités, 1964-1965, Conseil national de recherches et Conseil des recherches médicales, Ottawa, pp. 233-261

2 *ibid.*, pp. 262-265

3 Compte rendu annuel sur l'aide apportée à la recherche scientifique dans les universités, 1965-1966, Conseil des recherches médicales, Ottawa, pp. 7-37

4 *ibid.*, pp. 38-42

* *Incl. $4,200 grant to Macdonald College*

1 *Annual Report on Support of University Research, 1964-1965, National Research Council and Medical Research Council, Ottawa, pp. 233-261*

2 *Ibid., pp. 262-265*

3 *Annual Report on Support of University Research, 1965-1966, Medical Research Council, Ottawa, pp. 7-37*

4 *Ibid., pp. 38-42*

TABLEAU II

Sommaire des subventions du Conseil des recherches médicales selon l'université, 1964-1965 et 1965-1966.

TABLE II

Summary of Medical Research Council Grants by University, 1964-1965 and 1965-1966.

université — *university*	total 1964-1965	total 1965-1966
	$	$
Alberta	387,810.00	503,120.14
U. of B.C.	473,911.00	641,499.00
Dalhousie	221,400.00	330,555.00
Guelph	—	35,244.00
Laval	152,162.00	238,150.00
Manitoba	344,724.00	343,711.88
McGill	1,032,894.07	960,157.69*
McMaster	23,250.00	39,650.00
Montréal	252,830.00	526,612.00
Ottawa	223,700.07	254,731.18
Queen's	295,800.00	340,618.05
Saskatchewan	161,780.00	197,185.00
Toronto	690,760.58	928,572.50
Waterloo	—	7,410.00
Western	311,485.00	447,761.00
York	—	2,800.00
Autres — *Other*	605,631.75	1,336,032.00
TOTAL	5,178,138.47**	7,133,809.44

* incl. une subvention de recherche de $4,200 à Macdonald College

** Cette somme obtenue par l'addition des subventions individuelles est de $250.53 de plus que ce montant global inscrit à l'article du budget du Conseil des recherches médicales.

* *Incl. $4,200 Operating grant to Macdonald College.*

** *This total, obtained by adding together the individual grants, is $250.53 more than the total given in the item covering the budget of the Medical Research Council.*

APPEAL IN AID OF THE UNIVERSITY OF FLORENCE

C.A.U.T. invites all members of the Canadian university community to share in aiding the University of Florence to repair the great damage caused there during the disastrous floods of November 1966.

Serious losses occurred in the libraries and laboratories of the University, with much valuable material and equipment lost or badly damaged.

An appeal for financial aid on behalf of the University of Florence has been received from the Central Council of the International Association of University Professors and Lecturers. The Executive and Finance Committee of C.A.U.T. has made a grant of $500.00 and urges every individual who can to make a contribution.

Contributions of money may be sent to the Central Office of C.A.U.T., Room 603, 77 Metcalfe Street, Ottawa, to be forwarded to the University of Florence. Persons who wish to contribute books or equipment are invited to contact the Secretariat of I.A.U.P.L., Rozier 6, Ghent, Belgium, for further information.

ASSISTANCE À L'UNIVERSITÉ DE FLORENCE

Pour venir en aide à l'Université de Florence affligée lors des inondations dévastatrices de novembre 1966, l'A.C.P.U. fait appel à la générosité de l'ensemble de la communauté universitaire du Canada.

Les bibliothèques et les laboratoires de l'Université sont sérieusement ravagés. Des documents de valeur et des appareils sont détruits ou grandement endommagés.

Le **Conseil central** de l'Association Internationale des Professeurs et Maîtres de Conférences des Universités (I.A.U.P.L.) sollicite notre aide financière pour soutenir les efforts de réaménagement de l'Université de Florence. Le **bureau de direction** de l'A.C.P.U. a déjà voté une somme de $500.00 à cette fin; il incite également chacun de vous à verser une contribution individuelle.

Veuillez adresser vos souscriptions au secrétariat de l'A.C.P.U., 77, rue Metcalfe, bureau 603, Ottawa 4; nous les ferons parvenir à l'Université de Florence. Les personnes intéressées à donner des volumes ou des appareils sont priées de communiquer directement avec le secrétariat de l'I.A.U.P.L. :

Association Internationale
des Professeurs et Maîtres
de Conférences des Universités
Rozier, 6
Gand, Belgique

CENSURED ADMINISTRATIONS

The following is a list of U.S. institutions which are currently under censure from the American Association of University Professors.

The Jefferson Medical College of Philadelphia — April, 1956

Texas Technological College — April, 1958
(Censure was voted specifically on the Board of Directors, and not on the institution's administrative officers.)

Lowell Technological Institute — April, 1960

Benedict College — April, 1961

Alabama State College — April, 1962

South Dakota State University — April, 1962
(Censure was voted specifically on the Board of Regents of Education of the State of South Dakota, and not on the institution's administrative officers.)

Alcorn Agricultural and Mechanical College — April, 1963

Arkansas State Teachers College — April, 1963

Grove City College — April, 1963

Sam Houston State Teachers College — April, 1963

University of Arkansas — April, 1964

Mercy College of Detroit — April, 1964

College of the Ozarks — April, 1964
(Censure was voted specifically on the Board of Trustees, and not on the institution's administrative officers.)

University of South Florida — April, 1964

Wayne State College (Nebraska) — April, 1965

Lincoln College (Illinois) — April, 1965
(Censure was voted specifically on the Board of Directors, and not on the institution's administrative officers.)

St. John's University (N.Y.) — April, 1966
(Owing to the extraordinary seriousness of the violation of academic freedom and tenure by St. John's University, the Fifty-Second Annual Meeting of the Association approved an action of Committee A which states that, although "we do not recommend imposing an absolute obligation upon our members to decline appointments, we do feel that in the case of St. John's University it would be inappropriate for our members to accept appointments at St. John's University".)

THE MANAGERIAL REVOLUTION IN HIGHER EDUCATION

by Francis E. Rourke and Glenn E. Brooks

Baltimore, The Johns Hopkins Press, 1966
(Copp Clarke Publishing Company, Canada)

To some of my colleagues in the Canadian university community this will prove to be an intriguing volume; to others it will be a profoundly disturbing one. I found myself a member of this latter group. The work details the results of an intensive study of recent changes in the administration of U.S. colleges and universities based upon responses to four questionnaires administered at more than 300 institutions, supplemented by personal interviews conducted at thirty three institutions and the central governing boards in sixteen states.

The authors, two political scientists with previous research experience in higher education, had two principal objectives: first, to gauge the extent to which new techniques of management have actually permeated American higher education; and secondly, to measure — in at least a preliminary way — what impact the new science of management has had upon the academic community. At the root of their concern in this latter respect lay two basic questions:

(1) "Are colleges and universities making different kinds of decisions from those they once did as a result of the new management techniques available to them?"

(2) Have the innovations in management brought important shifts in control over decision-making in colleges and universities in this country (U.S.)?" (p. 16).

One of the chapters (Chapter 2) is devoted to *The Computerized Campus* and in it we are given a glimpse of the marvels of electronic magic that have been worked on U.S. campuses in recent years. Three key findings emerged from this part of the study:

1. The real potential of computers in universities is still largely unrealized, which means that, while computers are being used to increase

the speed, accuracy, and general effectiveness of much routine administrative work in the university, the capacities of the computer for sophisticated varieties of administrative analysis going far beyond routine clerical matters to date remain largely unused. The use of computers to develop mathematical models of universities for pre-testing complex policy decisions or to play administrative games (similar to the war games played in the Pentagon) for the purpose of training university administrators has not yet been developed very far.

2. New designs for administrative organization have appeared along with the advent of computers and new concepts which may prove to be of paramount importance have been introduced. For example,

> "since the computer holds out promise of a comprehensive integration of information which will permit organizational unification . . . administrators have begun to think of the university as a single organizational system, rather than in terms of arbitrarily separated administrative units, and to devise procedures which cut across many of the jurisdictional boundaries" (p. 19).

I would have thought that a good old-fashioned university academic with a developed concept of the nature of the university as a community could produce equally effective integrated administrative activities without any real need for robot assistance in this. However, I reckon without the insight of the new breed of academic manager who notes, "In this process the computer and the men who operate it have been moved into positions of new prominence in the administrative hierarchy" *(ibid.)*.

3. Finally, our researchers have discovered that, "the introduction of computers (also) frequently influences the distribution of authority and the shape of policy within an academic institution" *(ibid.)*. In the resulting re-shaping of authority and policy, adverse side-effects may appear, such as student alienation, faculty unrest, and intra-administrative struggles; and unless these negative side effects can be successfully anticipated and remedied, they may negate many of the gains made by computerizing the campus.

In the course of this chapter the reader is treated to a rather grisly list of computer accomplishments. At the University of Washington, for example, a computer works out the grade average for each student and then addresses a printed letter of expulsion to those who fail to meet the specified average required for continuing in good standing. The student does have an opportunity to appeal his expulsion to the dean if he wishes; but unless he does this, he goes out the door 'untouched by

human hands'. At the University of Illinois the computer is used to analyze the grading patterns of faculty members, a practice which the authors remark "causes no small amount of uneasiness in the academic community". One unnamed institution even uses the computer to produce the President's letter of appointment to the academic staff.

Our brave new worlders console themselves with the evidence that, "So far, at least, it appears to be highly important to some universities to avoid the public image of being unduly automated or inhumanely efficient". (p. 25) Yet they admit,

> "As a matter of fact, in spite of the assertions by administrators that computers create potentially more personal relationships with students, and notwithstanding the genuine efforts made at many institutions to preserve a spirit of individual attention, the movement in university administration appears to be more in direction of impersonal automation than away from it." (pp. 25-6)

Another chapter (Chapter 3) deals with *The Growth of Institutional Research*. Institutional research, as Rourke and Brooks see it, lies at the heart of the trend toward the use of modern management techniques in higher education. Sometimes institutional research produces information that results in alterations in administrative routine; at other times the results of institutional research may trigger profound changes in the institution. Our authors point out that,

> "the establishment of an office of institutional research may also signal an important shift of power within the university hierarchy, since the data gathered through such an office may furnish a potent instrument of administrative planning and control." (p. 44)

The basis for such a conclusion may be seen from some results of questions put to directors of offices of institutional research concerning their activities. To the question: To what university official does the office of institutional research report? 64% replied that reports went directly to the President, 13% that they went to the Vice-President, 10% that they went to the Academic Dean, with the rest indicating variants of this. To the question: Should a director of institutional research become a university president's 'right-hand man'? 47% of those replying agreed that he should, with only 14% replying that he should not, and the others qualifying their answer in various ways.

A chapter dealing with *Allocating Academic Resources* (Chapter 4) points out the unmistakeable trends towards more rationalized procedures for the management of money and space, notably through increased use

of formulae, cost analysis and methods of displaying fiscal and space data. It also points out that the introduction of these new procedures have often produced a change in the locale of important policy decisions, for example, from deans to business officers.

One fascinating section of this chapter, appropriately headed, *The Two Faces of Academic Budgetting*, gives a very perceptive analysis of the uses of *formula budgetting* and *cost analysis* in institutions of higher learning. Rourke and Brooks point out candidly that the use of formulae has been very heavily shaped by external considerations, even quoting one vice-president's explanation of his university's use of formulae in preparing and submitting its budget requests to the state legislature in these words: "We use the displays that give us the best image." (p. 78)

They emphasize a fact which needs to be underscored, that formulae are essentially rules of thumb designed to stabilize relationships within the educational system. Formulae do not rest to any appreciable extent upon research linking the formula in question to the effectiveness of the educational process (e.g. a student-faculty ratio of 15:1); and to the extent that they have any empirical base at all, they are most likely to rest on a ratio of costs which simply happened to be in existence at the time the formula was devised.

With respect to the uses of cost analysis, R. & B. make the following interesting statements: "Cost analysis (like formulae) appears to be developed by universities and colleges primarily in order to deal with outside agencies rather than for internal management purposes . . ." Cost studies have been used primarily for the purpose of preparing the legislative budget rather than as a means of determining the allocation of funds within each institution. (pp. 80-81)

They also show that university financial officials have tended to keep cost analysis separate from the development of budget formulae, since the two serve quite distinct purposes. Indeed, to bring the two together can produce a Pandora's Box effect which might result in the fate of internal university programmes being decided on the basis of cost alone — thus spelling trouble for high-cost programmes which may be necessary, and might also result in a government granting appropriations to institutions which perform their work cheaply rather than well.

In dealing with *New Styles of University Management* (Chapter 5), R. and B. enumerate four areas where significant changes have taken place: the shift from secrecy to publicity in the general conduct of both

administrative and academic affairs, the development of a cabinet style of government in place of the presidential system of executive leadership, the introduction of more rational less subjective forms of decision making, and the development of the multi-campus university with its new administrative forms and difficulties.

The authors are conscious of the possibility that the revolution in university management can prove to be a mixed blessing, since it may serve to deepen the sense of faculty alienation and intensify the traditional antagonism between faculty and administration. Such dangers, they discovered, were more clearly present in new and rapidly expanding institutions. They cite as an example the new University of South Florida, where the presence of all the accoutrements of modern organization, equipment, and personnel were unable to prevent a serious demoralization among the faculty resulting from controversy over the cancellation of an appointment offered a distinguished political scientist and the resulting censure of the university by the A.A.U.P.

It is encouraging, however, to note that R. and B. feel that such problems are unlikely to arise in the long-established prestigious institutions, where they found no fundamental alteration in the relationship of faculty and administration as a result of the advent of scientific management. (pp. 102-3)

The last chapter (Chapter 6) *The Meaning of the Managerial Innovation* is the shortest but in some ways the most interesting. For in it R. and B. present their own assessment of the managerial revolution occurring on campuses.

Easily the most noteworthy feature, they conclude, is that the innovations have not led to the universal triumph of any Gresham's law of administration. "The soft currency of quantitative standards has not in fact driven out qualitative material altogether." (p. 123)

Nevertheless, R. and B. feel constrained to issue the following warning:

> "... the new approach to management should be made relevant to academic goals as well as housekeeping needs wherever possible. While there is always the danger that an institution will make an excessive commitment to quantitative management in areas of academic decision where this approach does not really fit, it is equally important to keep management from measuring only those things which it is convenient to measure and then giving the resulting calibrations unwarranted weight in the decision-making process." (p. 124)

This latter is an important *caveat,* made all the more so for Canadian academic readers by the fact that it is illustrated by reference to cost studies,

> "(which) can easily have much more influence than they deserve — to the disadvantage of high-cost programs — if they are not balanced by an equivalent effort to appraise the possibility that much more is being achieved in areas of high-cost than in low-cost operations." *(ibid.)*

Under the heading, *Pitfalls to be Avoided,* while maintaining that the campus computer is more the symbol then the source of impersonality in American universities today, R. and B. do admit that many universities have not succeeded in avoiding having computers aggravate campus morale rather than improve it. The examples cited in Chapter 2 give ample illustration of why this has occurred.

They also issue a timely warning against the tendency to attach too much importance to the techniques of analysis now increasingly commonly in use. As practising academics, they know that the formulae used for allocating resources are most commonly based on nothing more substantial than convenience, political necessity, or institutional tradition. Now that these standards can be expressed in precise quantitative terms, there is a danger that these figures will come to be reverenced as though they possessed a degree of scientific exactitude they do not and cannot have.

The closing paragraphs of this short chapter are devoted to *The Managerial Revolution and University Government.* As R. and B. see it,

> "The central problem of university government which the managerial revolution has highlighted and to no small extent contributed is the question of the participation of the academic staff in the decision-making processes of the university." (p. 128)

They recognize that in the past faculty participation in university government has been through a system of 'direct democracy'. In today's changed conditions (they judge) this system to be just as impractical in the university as it is in the traditional town meeting government in New England, and that it needs to be replaced by some kind of representative democracy if the voice of the faculty in university decision-making is assured.

R. and B. are very critical of current disinterest on the part of faculty in the governance of their institutions, and remark that,

> "The most paradoxical development in higher education in recent years has been the fact that the status of the individual

> faculty member has been growing on university campuses even while his participation in university government has been declining." (p. 128)

The reason for this decline is not held to be due to administrative design or aggrandissement, but rather to faculty default. Indeed, they say that faculty members with bigger fish to fry — research contracts, consultantships, and the other spoils of the affluent academic society, now tend to assert their power by declining to participate in university government.

Although I am not in a good position to judge the validity of this assessment of American university faculties, I am inclined to the view that it is overdrawn both in terms of how academics tend to assert their power and in terms of how responsible by default they are for the present degree of their non-participation in university government.

I do, however, share the view of R. and B. that the present situation is unacceptable, both for the pragmatic reason that faculty advice on academic matters is essential for the proper development of a university (the reason they put forward) and for the theoretical reason that faculty have a right to participate in the control of academic affairs (a reason they reject).

Their major recommendation for improving faculty participation in university affairs calls for faculty to develop "its own academic civil service, which will reflect faculty rather than administrative points of view in management of the university." (p. 129)

For the efficient management of today's complex university a high level of administrative competence is required and some division of labour is clearly necessary. But it seems to me unnecessary, even dangerous, to propose meeting increasing administrative bureaucracy in the university by the development of a counter-vailing faculty bureaucracy. What is needed is a reduction in the rate of increase of administrative bureaucracy in our universities, something which cannot be accomplished unless university faculty are willing, and are given an opportunity, to share responsibility for the running of their institutions.

As Rourke and Brooks indicate, "If a faculty is to be influential in the affairs of a university it must be able to decide as well as to deliberate." (p. 129) They also record that faculties today are not as well organized for decision and action as they are for deliberation. With these statements I also agree. But (at least in the cases of Canadian universities) I would

put down as one of the major reasons for this deficiency, not the fact that faculty are inherently deliberation-oriented (which of course they are), but the fact that 'til now they have had relatively little opportunity to participate in the really important decisions affecting their universities. Perhaps faculty will abuse this power when they obtain it. They certainly ought not to be criticized *in vacuo* for failing to accomplish what they have not really had a chance to do.

Edward J. Monahan

TEACHING GEOGRAPHY **$5.60**

by I. L. M. Long and B. S. Roberson

A book which covers every aspect of geography teaching from field work and mechanical aids to examinations and syllabuses. It deals with the whole range of secondary teaching and the text is supplemented by many specimen lessons and bibliographies. This book has been written with the needs of students in training especially in mind but the material it contains is invaluable to all those concerned with the teaching of geography. **Illustrated.** May 1967

BELLHAVEN HOUSE

98 LESMILL ROAD, DON MILLS, ONTARIO. TELEPHONE 445-7510

NOTICES OF POSITIONS VACANT
ANNONCE DES POSTES VACANTS

University of Alberta, Edmonton, Alberta. Applications are invited for a new appointment to the *Department of Botany:* Physiological Plant Ecologist and Director of the Controlled Environment Facility. Responsibilities to include instruction and direction of research in the fields of autecology, population ecology, and genecology at the graduate level; giving the plant ecology course in alternate years, and contributing general ecology lecture series to the intermediate biology course for undergraduates. Will direct final planning and become scientific administrator of a large greenhouse-growth chamber complex supported by N.R.C. in the new Biological Sciences Building presently scheduled for completion in the summer of 1969. Successful applicant will receive immediate capital and operating support to permit minimal disruption of individual research while construction proceeds. Prefer but not require an interest in the physiological ecology of arctic-alpine and boreal-montane plant populations. Salary and rank commensurate with qualifications, up to and including Full Professor with base of $16,600. Applications and requests for additional information should be addressed to: Dr. Wilson N. Stewart, Professor and Head, Department of Botany.

University of Calgary, Calgary, Alberta. Assistant/Associate Professor of *Mechanical Engineering* required with experience in Solid Mechanics or Fluid Mechanics or Thermodynamics. Salary $9,000 —-$16,550. Enquiries to: Dr. D. H. Norrie, Head, Department of Mechanical Engineering, University of Calgary, Calgary, Alberta.

University of Saskatchewan, Saskatoon, Sask. *College of Pharmacy:* 1. Appointment in each of: Pharmaceutical Chemistry, Pharmacognosy, Biopharmaceutics, and Pharmacy Administration. 2. Ph.D. or equivalent qualification in the area of specialization required. Other graduate qualifications plus experience will be considered. 3. Duties are undergraduate teaching; teaching and direction of graduate research students. 4. Salary schedule: Assistant Professor: $8,200 — $11,100; Associate Professor: $11,500 — $14,600; Professor: $15,000 — up. The level of appointment is determined by training and experience. Increases are under negotiation. 5. Date of Appointment: July 1, 1967 or as agreed.

6. No fixed closing date for applications. 7. Send an application with a curriculum vitae, a recent photograph, and the names of three referees to Dean W. C. MacAulay, College of Pharmacy, University of Saskatchewan, Saskatoon, Saskatchewan.

Scarborough College (University of Toronto,) West Hill, Ontario. Experienced woman who, directly under the Principal, will take over all responsibility for new student residences (men and women) and for student programmes other than athletic. Student counselling might also fall within her sphere of responsibility. The position is a new one in a College that expects about 1,000 students in 1967-68 with subsequent growth plans up to 5,000. A variety of experience, academic and administrative, could be valuable to the appointee who will, in large measure, be expected to "make the job" herself. Applications, with curricula vitae, should be addressed to the Principal.

The University of Victoria, Victoria, B.C. *English Department Head.* An established senior colleague to further the development of a department which has a long history of excellence in undergraduate training and is about to embark on postgraduate work. Duties to commence September 1, 1967. Applications should be received before May 1, 1967 by: The Dean, Faculty of Arts and Science, University of Victoria, Victoria, B.C.

The University of Windsor, Windsor, Ontario. *Philosophy:* two positions available beginning September 1967, one permanent, one temporary with the strong possibility of becoming permanent. Applicants preferred with qualifications in nineteenth and twentieth century philosophy, philosophy of science, or analytical philosophy. Ranks and salaries, depending upon qualifications and experience, are: lecturer $7,000 — $9,000; assist. $9,000 — $12,500; assoc. $12,000 — $15,500; prof. $15,000 minimum. Write S. B. Cunningham, Dept. of Philosophy, University of Windsor, Windsor, Ontario, Canada.

Mechanical Engineering: applications invited for a full-time position available September 1, 1967. Duties involve both undergraduate and graduate teaching as well as supervision of graduate students. Applicants should have a background and interest in Heat Transfer and Thermodynamics. A Ph.D. degree is required. Salary and rank open. Applications, which will be kept in complete confidence, should include full

details and are to be addressed to: Head, Department of Mechanical Engineering, University of Windsor.

Structures and/or Engineering Mechanics, Water Resources Engineering, Sanitary Engineering, Hydrology, Hydraulics: duties include undergraduate and graduate teaching and research. Ph.D. desirable. Rank of appointment and salary commensurate with qualifications. Salary ranges are: $9,000 — $12,500, $12,000 — $15,500, and $15,000 up per annum for ranks of Assistant, Associate and Professors respectively. Apply to Dr. J. B. Kennedy, Head, Dept. of Civil Engineering, University of Windsor.

University of Manitoba, Winnipeg, Manitoba. *Exploration Geophysics:* Assistant Professor. Duties: teaching two courses in Geophysics. Desired Research Interests: (1) Development of exploration, instruments and techniques applied to the location of ore and water. (2) The application of geophysical interpretation to regional studies of the Canadian Shield. Salary $9,500 — $11,500. Ph.D., preferably some experience in Geophysical exploration. Apply to: H. D. B. Wilson, Head, Dept. of Geology, Mineralogy, and Geophysics, University of Manitoba, Fort Garry 19, Man.

University of Alberta, Assistant or Associate Professor of *Metallurgy,* duties to commence July 1, 1967. Salary ranges $9,000 — $12,480 and $12,500 — $16,550 respectively. Duties will include participation in teaching both physical and extractive metallurgy courses; research. Good background in X-ray work and thermodynamics and kinetics essential. Address applications to: Head, Dept. of Mining and Metallurgy, University of Alberta, giving personal data, details of academic background and experience, the names of three references, recent photograph. Closing date June 15, 1967.

University of Saskatchewan Regina Campus. The *Dept. of Modern Languages* has a vacancy for an Instructor or Lecturer in Russian and Ukrainian. Appointment with annual salary from $6,500 to $8,500 effective July 1, 1967. Send curriculum vitae together with the names of three referees to Dr. Peter M. Daly, Acting Chairman, Modern Languages.

University of New Brunswick: Dept. of Physics. Assistant Professor of Physics. Ph.D. required. Salary open. Appointment effective July 1st,

duties to start September 1st. Apply to Head of Physics Dept., University of New Brunswick, Fredericton, N.B.

Royal Canadian Mounted Police: Historian. Permanent position. Ph.D. preferred, M.A. will be considered. Salary range $13,042 — $14,196. For further particulars, write The Commissioner, R.C.M. Police, Ottawa 7, Ontario.

QUIET EVOLUTION

A Study of the Educational System of Ontario

ROBIN S. HARRIS

During the past few years there have been several evolutionary changes in the educational system of Ontario: a reorganization of the Department of Education, the establishment of post-secondary institutions of applied arts and technology, the reform of Grade 13. A valuable contribution to the public debate about education in Ontario, this study is concerned with the nature and significance of these recent changes in the system.

$5.95 ($2.25 paper)

UNIVERSITY OF TORONTO PRESS

NOTICE OF PERSONS AVAILABLE FOR APPOINTMENT *

ANNONCE DES PROFESSEURS DISPONIBLES *

Box 67. Music: Male, 31, Canadian, Ph.D. dissertation progressing. Topic: Piano Music of Canadian Composers. Have performed much of this repertoire. Frequent CBC broadcasts, soloist with orchestras. U.S. tours. B.M., M.M. Study with Petri, Lhevinne. Nine years' university teaching and administration.

Box 117. International Relations specialist, male, age 24, seeks position in political science department, with emphasis on Comparative Politics and Modernization, Middle East, Southeast Asia, U.A. Foreign Policy. B.A. (Brandeis); Ph.D. ('67) (Grad. School of International Studies, Denver.)

Box 118. International Relations and Law; Near and Middle East Studies. Ph.D. Columbia University, 1965. Languages: French, Arabic, Hebrew. 1965 Assistant Professor at Adelphi University, currently updating thesis for publication. Publications: *Israel and Egypt in Africa* — under preparation for the *Center for Political Studies,* Washington, D.C.

Box 119. History: Male, Ph.D. cand. Fordham University. 5 years' experience, ancient and medieval, European survey; desires to relocate, Canada. September '67.

Box 120. Political Science: Male, married, two children, seeks position in political science/international relations. B.A. (Cape Town), B.A. Hons. (Rand), Ph.D. ('67) (Graduate School of International Studies, Denver.) Formerly Lecturer at U. of South Africa, Colorado Woman's College, U. of Denver.

Box 121. Industrial engineering, health and safety: BME, MME, Ph.D. (cand.) in industrial safety, 31 years of age. Experience in industrial health and safety, some industrial engineering. Desires teaching

---

* For fuller information write to the relevant Box No. at the C.A.U.T. National Office, Room 603, 77 Metcalfe Street, Ottawa 4.
* Toute demande de renseignements doit être adressée au numéro indiqué du casier, secrétariat de l'A.C.P.U., 77, rue Metcalfe, bureau 603, Ottawa 4.

position in Toronto or Montreal. Write, including particulars, to above box number.

Box 122. Music: Male, 51, married, daughter. B.M. (Piano and organ — Montréal); M.A. (Theory — U. of Conn.,) Ph.D. (Musicology — B.U.) Composition with Rochberg, Musicology with Geiringer (Middle Ages & Renaissance), conducting with Monteux. Present rank and salary: Assistant Prof. $8,620. 5 years' college teaching and administration. Band and chamber music experience, brass instrumentalist. Experience as Organist and Choirmaster. Publications. Bilingual. Available September 1967.

Case 123. Littérature française, philologie romane, histoire de l'art, journalisme. Doctorat d'université (Thèse : Tristan Corbière, poète maudit). Universités de Lausanne et Fribourg (Prof. : P.-H. Simon de l'Académie française). Enseignement aux degrés lycée, baccalauréat, université. Homme de lettres, critique, journaliste (inscrit au registre professionnel). Possibilité de monter cours complet sur le journalisme et reportage avec tous moyens audio-visuels (certificats radio, télévision, photo). Très nombreuses références. Enseignement en français. Éventuellement en allemand et portugais. Marié, 45 ans, Suisse français (Lausanne).

Box 124. Biologist: Ph.D. (London, England and Edinburgh), in Cytology and Genetics, Fellow of Royal Society (Edinburgh), teaching and research experience for about 10 years. Male, 42, married, seeking teaching or research position in university or research institute.

Box 125. Art and Aesthetics: B.A. Fine Art (Sask.); M.Ed. Art Education and Research (Penn. State); Ed.D. pending spring '67. Experience: College teaching (Columbia), elem. and secondary. Will teach studio or lecture in Art Ed., Intro, Philosophy of Art, Education, Aesthetics and Contemporary Art.

Box 126. History: Professor, male, 42 years. Canadian. Ph.D. from U.K. university. Teaching areas: Modern European and British History. Temporary appointment required for 1967-68. At present with overseas university under Canadian overseas aid scheme. Has permanent appointment for 1968-69 onwards.

Box 127. Music: Male, tenor voice. Artist teacher, choral director, pianist, organist. Wide experience as a performer and teacher. Desires position in Canadian college or university. Available June 30/67.

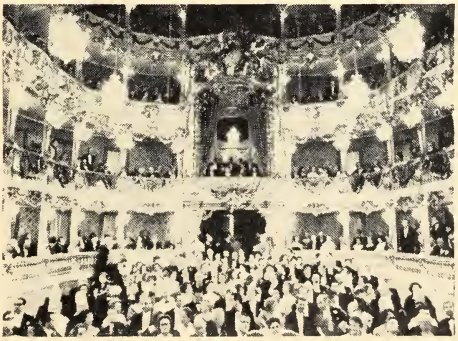
Plan now for a summer sabbatical in Europe!

From London to Moscow — Air Canada offers nine gateways to all Europe

Make the history, art, geography and music you've been teaching come alive. Fly off to Europe this summer. Your classrooms are cosy English inns, extravagant Scandinavian countryside or Moscow's Kremlin.

Air Canada offers flights to seven European gateways plus weekly service to Copenhagen and Moscow.

You may start with an Air Canada flight to London where every step brings life to another era. Wander up to Stratford for Shakespearean productions. On to the beautiful highlands of Scotland, Ireland and Wales.



At the Llangollen International Eisteddfod, hear heavenly voices of choral groups from around the world. The continent beckons. Paris, Vienna, Rome, Athens—feel history's pulse as you explore lands where ancient gods warred. In Germany, summer music festivals celebrate the genius of Mozart, Beethoven, Bach.

A swift Air Canada flight to Copenhagen puts the whole of Scandinavia within reach. If your interests run to the unique, consider Moscow. Exuberant Russians treat you to a city where subway stations are dressed for a grand ball and breakfast could be meat pie. The solemnity of Lenin's tomb, the opulence of gold-domed cathedrals—Moscow enthralls.

Everywhere you'll exchange ideas, explore new horizons and enjoy a world of history; past and present.

Your travel agent will help plan your trip: special group tours or an individual itinerary. Ask about Air Canada's "Fly Now-Pay Later" plan, too.

AIR CANADA

Regular flights to: Frankfurt, Paris, Moscow, Copenhagen, Vienna, Zurich, Shannon, and, with BOAC, to London and Glasgow.

OXFORD FOR CHEMISTRY

ISOTOPE CHEMISTRY

By G. B. COOK and J. F. DUNCAN

The authors by trying to answer the question : "What is the general chemical significance of the radioactive knowledge that the methods are capable of yielding ?" do not confine the text to simple tracer studies, but include topics arising from the properties of isotopes themselves and relates them to other fields.

276 pp. Paperbound. 1967. $4.75

HETEROCYCLIC CHEMISTRY, 2nd. edition

By ADRIAN ALBERT. 848 pp. 1967. $8.50

THE SECOND LAW

An Introduction to Classical and Statistical Thermodynamics.
2nd. edition, with corrections.

By HENRY A. BENT. 442 pp. Paperbound. 1967. $4.15

Already published

INORGANIC CHEMISTRY, Volumes I and II

By C. S. G. PHILLIPS and R. J. P. WILLIAMS

Volume I : 700 pp. 1965. Volume II : 700 pp. 1966. Each $8.80

INTRODUCTION TO MODERN CHEMISTRY

By M. J. S. DEWAR. 298 pp. Paperbound. 1965. $3.25

•

OXFORD UNIVERSITY PRESS
70 Wynford Drive
Don Mills, Ontario

COPP

ISSUES IN CANADIAN HISTORY

General Editor: Morris Zaslow

TWO ADDITIONS TO THIS VITAL NEW SERIES

THE KING-BYNG AFFAIR, 1926
A Question of Responsible Government
Edited and selected by Roger Graham
Was Byng's decision the wrong choice for the right reason? Or vice-versa? Was MacKenzie King constitutional in his demands? Had Arthur Meighen any justification in accepting office? What effect had the Affair on the constitution of Canada? $2.25

THE UNITED EMPIRE LOYALISTS
Men and Myths
Edited and selected by L. F. S. Upton
What sort of people were these refugees from the Revolution? Were they guided by high principles or were their reasons for coming to Canada strictly pragmatic? Have they a real place in the national epic of Canada comparable to the Pilgrims in the United States? $2.25

ALREADY PUBLISHED
THE FRENCH CANADIANS 1759-1766
Conquered? Half-Conquered? Liberated?
Edited and selected by Cameron Nish

READY SOON
RACISM OR RESPONSIBLE GOVERNMENT?
The French Canadian Dilemma of the 1840's
Edited and selected by Elizabeth Nish

JOSEPH HOWE
Opportunist? Man of Vision? Frustrated Politician?
Edited and selected by George Rawlyk

THE FAMILY COMPACT
Aristocracy or Oligarchy?
Edited and selected by David Earl

CLARK

LAMOND, DEWHURST, WESTCOTT & FRASER LTD.
Industrial Psychologists

have been asked to assist in the appraisal of

PRESIDENT — UNIVERSITY OF LETHBRIDGE

This newly-established university is seeking candidates for the position of President Enquiry is invited from university personnel with strong academic background and demonstrated administrative ability.

Lethbridge, a progressive city of 40,000, located close to the mountains in southern Alberta's ranching, farming and oil-producing area, compares favorably with much larger cities in its cultural facilities and programs. A student body of approximately 500 in the fall of 1967 is likely to double by 1967-72. Immediate recruiting is planned to expand the present core of 35 well-qualified academic staff members.

This appointment will afford a capable and energetic educator/administrator op portunity to guide from the start the development of a new university; to translate into action his ideas of what a university should provide the student body and the community.

You are requested to direct confidential initial enquiries, including an outline of qualifications and experience, to our Edmonton office, quoting 67-29E.

VANCOUVER: Vancouver Block
EDMONTON: 810 Royal Bank Building • CALGARY: 760 Elveden House
WINNIPEG: 809 Royal Bank Building • TORONTO: 55 Eglinton Ave. East